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Canadian Technical Men Meet At St. Catharines

Annual Meeting Is Well Attended by Representative Men From All the Paper Mill Centers of the Dominion as Well as By Numerous Visitors from the United States—George Carruthers Presents Weldon Medal to Dr. Otto Brauns of Abitibi Power & Paper Co. for Paper on Pitch Removal—Those Who Attended

[FROM OUR REGULAR CORRESPONDENT]

ST. CATHARINES, Ont., June 27, 1932—Few if any signs of business depression greeted the 150 or more members of the Technical Section of the Canadian Pulp and Paper Association at its summer meeting at St. Catharines, on June 22 to 24. Because of the concentration of a considerable number of mills manufacturing a wide variety of papers, a great proportion of the meeting's time was devoted to paper mill visits.

Mill Visits

On Wednesday, June 22, the Section visited the Alliance Paper Mills, Interlake Tissue Mills Company and the Provincial Paper Mills at Merritton, Ontario. The Alliance Paper Mills manufacture sulphite pulp and a considerable number of sulphite and rope stock specialties. The Interlake Tissue Mills Company are important factors in the Canadian M. G. paper and creped tissue industry, and the Provincial Paper Mills at Thorold, deink magazine stock and manufacture book and printing papers. All of the mills were operating and showed signs of plenty of business.

General Session

The business meeting of the Section was held at the Welland House in St. Catharines on June 23. D. L. McLeod of the Ontario Paper Company, and chairman of the Section, presiding. Reports were read by G. P. Genberg of Fraser Companies, Ltd., Chairman of the Sulphite Committee, and from John S. Bates of Price Bros. & Co., Ltd. who described the status of the relationship between the association and the Research Institute in Montreal. Dr. J. H. Ross, director of the Forest Products Laboratories at Montreal, outlined the work in progress at the Research Institute.

Following the general business meeting the various committees held sectional meetings to discuss their respective program of work to be reported more in detail at the annual meeting in January.

Weldon Medal Award

A feature of the Thursday luncheon was the annual presentation of the I. H. Weldon Medal to the member of the section who prepared the best paper for the annnual meeting program. This year the medal was awarded to Dr. Otto Brauns of the Abitibi Power and Paper Company, for his paper on pitch removal from sulphite. The presentation was graciously made by George Carruthers, president of the Interlake Tissue Mills, and former president of the Canadian Pulp and Paper Association. Mr. Carruthers gave several intimate sidelights regarding the life of I. H. Weldon, and explained that the medal is presented to encourage technical progress in the industry.

John Parks, production manager of the *Chicago Tribune*, read an interesting paper on Color Press Printing on News Print. Mr. Parks illustrated his talk with many attractive samples including rotogravure and run-of-paper color printing which is done at 1,600 feet per minute. Mr. Parks pointed out that the art of color printing on news print is young and many developments may be expected in the next few years. He stated that paper for such work should be smooth but not too highly calendered.

In the afternoon the members visited the Beaver Wood Fibre Company mill at Thorold and this visit was followed by a golf tournament at Lookout Point Country Club. The much prized McInnis Trophy was won this year by W. A. Woodruff, superintendent of the Lincoln Division of the Alliance Paper Mills, Ltd. The worst golf exhibition was performed by A. P. Gostigane of Toronto, who was suitably rewarded.

An opportunity was given to the members to watch the loading of paper on the motor ship of the Ontario Paper Company. On either side of the boat is inscribed "3,000 Tons of Paper for the *Chicago Tribune*."

On Friday visits were made to the Welland Ship Canal and the Ontario Paper Company and at noon the members were the guests at a luncheon tendered by this company. Visits were then made to the International Paper Mills at Niagara Falls and Tonawanda, N. Y., and to the Queenston Power House and Niagara Wire Works.

Those Who Attended

Those who attended the meeting included the following: J. M. Anderson, Ontario Paper Company, Thorold, Ont.;

(Continued on page 16)

Philadelphia Paper Market Moderately Active

While Demand for Various Grades of Paper Continues Spotty, Orders for Small Tonnages Are Becoming More Frequent—Increased Request Experienced for All Kinds of Seasonal Specialties—Book Paper Situation Improves

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., June 27, 1932—Though business shows improvement, it is not of the impressive type indicating a turn for continuous advance. Dealers report a livelier but spotty market, with more frequent orders for small quantities of paper generally. Prices among a few grades continued to show adjustment to the restricted buying of the current business situation.

There was increased business for seasonal specialties of all kinds, such as sanitary products, soda fountain and ice cream supplies, outing goods and napkins, as well as grease proof food wraps. Wrapping papers and bags were steady, as they have been the past few months. Moth proof products were in demand, as well as insecticide papers used by the produce and wholesale grocery trades as protection against insects in the summer months.

Mill agents for book papers and others used a large tonnage by prominent printing and publishing concerns, reported better demand, though orders did not keep pace with those of last year. Cheaper grades of bonds were reduced ¼ cent last week.

The board market is chaotic, with no set prices to be depended upon where mills are able to secure tonnage orders, so that dealers report they are in a quandary to know just what may be expected from day to day.

The paper stock market is draggy, with no mill business of consequence, and prices holding at low levels.

Paper and Printing Trades Golf Tournament

Paper trade associates have received invitations to be present at the 16th Annual Golf Match of the Paper, Printing and Publishing Trades to be held June 28, at the Aronimink Golf Club, Newtown Square. Following the noon luncheon the playing begins at 1.30 p.m. when the associates of the Graphic Arts industries will make up their own foursomes or in event they desire to have the committee on arrangements provide their partners, will extend help in the matching of players. There will be three prizes. two to be awarded for the first and second low net score, and the Kickers Handicap. The committee in charge of arrangements comprises the following associates:—Irwin F. Megargee, Curtis & Bros.; Arthur B. Sherrill, paper mill representative; and Hal T. Sorensen, of the Beck Engraving Company; representing the allied industries.

DuPont Cellophane In New Quarters

Following the consolidation of the Eastern district sales offices of the various divisions of the DuPont de Nemours Corporation, in the 1616 Walnut Street Building, the chemical division and the DuPont Cellophane Company, sales division, have been consolidated in the same quarters but operating as separate departments. Both these divisions supply the paper industry with products in the DuPont lines. The Roessler and Hasslacher Chemical Company Division, of the DuPont Corporation, supplying chemicals, and the DuPont Cellophane Company, supplying cellophane to the trade occupy the 19th floor of the building. These divisions supply the trade in the Eastern territory from New York to Florida and from Ohio to the Atlantic Coast. W. O. Henderson, who is Eastern district sales manager and who formerly had offices in New York, is quartered in the DuPont Cellophane sales offices here with his assistant, Veasey C. Clarke, and E. A. Wight.

Garrett Buchanan Co. Adds Worthy Papers

Following the purchase of the entire paper stocks of the Lindsay Paper Company, from the receiver Howard Sattherthewaite, of the Sattherthewaite-Cobaugh Company, the Garrett Buchanan Company, 16-20 S. 6th Street, has announced that several of the Worthy Paper Company lines will be added to its paper stocks as permanent lines. Among the Worthy Paper Company lines which the Garrett-Buchanan Company will carry are the Worthy Aurelian, Worthy Signature, Sterling Bonds and the Worthy Manuscript. The local paper house will carry a complete stock of these papers formerly represented in the Philadelphia territory by the Lindsay Paper Company. The Lindsay Paper Company is being liquidated under the Receivership, following the death of the late head of the firm, Joseph Horace Lindsay. The Garrett Buchanan Company recently bought out the entire paper stocks of the Lindsay Company amounting to $20,000.

Container Corp. of America Consolidates Offices

Following the removal of the sales staff of the Container Corporation of America from its offices in the 1700 Sansom Street Building, to the mill quarters in Manayunk announcement was made that the offices of the Eastern District Sales Division have been located in the manufacturing division offices. Future sales of the Eastern District will be conducted from the new quarters in the mills office building on the large plot used for the manufacture of paper boards and containers. C. E. Carpenter, Eastern District Sales Manager, and his staff, have been removed to the new location.

Ormond Freile Receives French Citation

Ormond Freile, vice-president in charge of sales, of the Paper Merchants Inc., 140 North 6th street, was among the World War Veterans who on June 12 received from the Mayor of Verdun, France, the French citation for bravery shown at the defence of Verdun in the World War. The exercises were held by the City of Philadelphia in Independence Hall Square when the remaining veterans of the 78th Division, New York, were recipients of the Verdun Citation. There are few survivors of the 78th Division who fought in the defense of Verdun. Mr. Freile has received other citations for his valor in the World War, having been wounded several times, as a result of which he spent some time in hospitals, although now enjoying good health. He has received three official wound stripes. He was also decorated in France with the Croix De Guerre while serving with the 78th Division and was in the Battle of Argonne in the campaign of 1917-18, when he was wounded.

Keasby & Mattison Co. Changes

The Keasby and Mattison Company, manufacturers of asbestos products, Ambler, Pa., has announced several changes effective in the personnel of the company. A. S. Bryant has been elected treasurer and secretary of the

Keasby and Mattison Company and of the Ambler Asbestos Shingle and Sheathing Company. He succeeds N. G. Funk, who has been assigned to other duties. W. C. Scott has been elected assistant treasurer and comptroller, following the resignation of Joseph Walker. William A. Harris has been made manager of building materials succeeding Ralph S. Frey. He formerly was manager of the Flintkote Corporation, having been connected there for the past twenty years. A. C. Lesher, formerly purchasing agent of the Ambler Asbestos Shingle and Sheathing Company, has been placed in charge of the consolidated purchasing departments of the Keasby and Mattison Company and the Ambler Asbestos Shingle and Sheathing Company. S. W. Fager has been appointed Western railroad representative, with headquarters at the Chicago District Offices, 823 Engineers Building.

Scott Paper Co. Declares Dividends

The board of directors of the Scott Paper Company, of Chester, Pa., manufacturers of Scott Tissues, have declared the quarterly dividend of $1.75 per share on the 7 per cent Series A cumulative preferred stock, and $1.50 on the Series B, cumulative preferred stock, both payable August 1.

Gordon T. Friend at Convention

Gordon T. Friend, vice-president and general manager of Thomas M. Royal & Co., 7th and Grange streets, has been attending the Tea and Coffee Convention held in Milwaukee, Wis., the past week. Thomas M. Royal & Co. were exhibitors of their Royal line of coffee and tea bags and wrappers at the convention. Prior to the return trip he will visit the Chicago sales offices and make a tour of the trade in the Great Lakes Region.

Hinde & Dauch Paper Co. Adds New Plant

Another Atlantic Coast plant will be added to the Hinde & Dauch Paper Company, manufacturing units, augmenting the Philadelphia, Baltimore and New England branches. The new plant is located in Winston-Salem, North Carolina and will be given over to production of corrugated containers and products shipped to Southern points. The Philadelphia sales offices are located in the Drexel Building, while the paper mills and corrugated container plants are in Gloucester, N. J.

Myer Magil Buys Carloads of Paper

Myer Magil, head of the Penn Card and Paper Company, who has been spending several weeks in New England has returned to his desk after buying several carload lots of paper in that section. He was accompanied by his son Leon Magil, a student of Temple College, who is joining the company, for the summer season. While in Springfield, Mass., he visited his son, Rabbi Ruben Magil. The several carloads of cards and fine papers will be distributed through the Washington, D. C., and Philadelphia concerns, owned by the Penn Card and Paper Company. The Washington branch paper house at 808 H. street, N. W., was opened this year and is broadening its business under manager Leroy Sorell.

Old Oriental Papers

Of three additional old Oriental papers tested by the Bureau of Standards, Washington, D. C., one was composed of bamboo, and the other two of mulberry fibers. According to information received with the papers, considered authentic, the bamboo paper has been in existence over 400 years and the other two about 150 years. The papers were all in good condition.

White Paper from Southern Pine

A press dispatch from Savannah, Ga., under date of June 22 says: "One of the greatest commercial opportunities ever opened in the South—discovery that white paper can be made from virtually all its pine forests—was announced here today.

"White paper chemical pulp, made for the first time from long leaf and loblolly pines, 80 per cent of the South's pine forests, was prepared for exhibition to a meeting of the Georgia Forestry Assn., Wednesday at Rome.

"The discovery, a closely guarded secret until today, was made within the last month at Georgia's experimental paper mill here. The mill is supported by grants from the State Legislature and operated by the research division of the Georgia Department of Forestry and Geological Development.

"The new method of making paper was announced by the director of research, Dr. Charles H. Herty, of New York, former president of the American Chemical Society. The process is a development of his discovery two years ago that, contrary to a fifty-year-old belief of both scientists and paper experts, white paper and newsprint can be made from slash pine.

"But there are only about 10,000,000 acres of slash pine in the South, chiefly in Georgia, Florida and along a narrow strip of the Gulf coast.

"Long leaf and loblolly, the new white paper pines, on the other hand, cover 100,000,000 acres, not only constituting the bulk of Southern forests but also being scattered through the States of Virginia, North Carolina, Georgia, Florida, Mississippi, Alabama, Louisiana, Arkansas, Missouri, Tennessee, Texas and Oklahoma.

"So the discovery promises the United States its own domestic source for vast supplies of white paper.

"Two varieties of Southern pine remain untested for white paper manufacture. Both will be tried out in the Savannah plant. Dr. Herty said no reason is known for anticipating failure with them. They are Virginia pine, which grows in Virginia and to some extent in North Carolina and the higher elevations of Georgia, and short leaf or 'old field' pine, which is widely distributed through those parts of the South having red soil."

Import Committee Busy

The current report of the Import Committee of the American Paper Industry tells of efforts of importers to secure the admission at what are believed to be improperly low rates, of thirty-seven shipments of various kinds of paper.

"The value of the shipments," says Warren B. Bullock, manager, "is about $80,000." The importations include six of hand-made writing or book paper, two of printing paper claimed by importers to be standard news print, seven of flint glazed, and other fancy papers, five of bristol claimed by importers to be cardboard, paper napkins, matrix board and cover paper.

New Device for Grinding Slitters

HOLYOKE, Mass., June 28, 1932—The firm of Charles Koegel's Sons, manufacturers of paper machinery in Holyoke are bringing out a new device for grinding the heavy slitters used to divide paper the required width as it comes from the paper machine. By the arrangement the small top slitter is removed temporarily and a motor driven grinder is put on the shaft in its place and automatically grinds the large slitter below. All the slitters on the machine are ground in this way.

News Print Merger Negotiations Proceeding

Although Temporarily Checked by Lord Beaverbrook's Announced Opposition to Proposed Consolidation of Canadian Manufacturers, Committee Under E. W. Beatty, President of Canadian Pacific Railway, Continues Its Efforts

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., June 27, 1932—Quite a discussion is going on in news print and financial circles here as to what Lord Beaverbrook's dramatic entry into the news print field in Canada may portend. Coming to the rescue of Price Bros. & Co. with a reorganization plan which was accepted and which enabled him to place a board of directors of his own choosing in command, Lord Beaverbrook rather surprised everybody by announcing his opposition to the proposed general news print merger, and by declaring that all his influence would be used to maintain Price Bros. as an independent company.

Control of News Print Industry

In some quarters this is taken as meaning that out of loyalty to the Price family he is determined to maintain the famous Price dynasty in the news print and lumber field in Canada; in others it is regarded as implying that he intends to block the merger which a committee under E. W. Beatty, president of the Canadian Pacific Railway, has been working on for some time, and to inaugurate a merger under his own leadership.

In other words, some think his intimation is a challenge that may start open warfare for the control of news print. One paper says: "With the control of Price Bros. Lord Beaverbrook is placed in a position of tremendous power in the industry. If the other operators do not fall in line with his plans and policies, he has, in Price Bros., the weapon to force them. Further if the other companies resist, the resulting struggle may prove disastrous to present bondholders, who have already seen heavy depreciation in their investments as a result of previous struggles."

Further Price Cutting Unlikely

In other quarters, however, no such interpretation is placed upon Lord Beaverbrook's action. It is pointed out that, with conditions in the news print field now prevailing, and threats of further price cutting—the only effective club that could be used to force through such an amalgamation—could only result in aggravating existing difficulties.

It is understood that the Beatty Committee, so-called, is continuing its efforts, although—and here is where Lord Beaverbrook enters into the picture—interests close to the situation fear that at least a temporary check to its plans has resulted from the change in control of the big Quebec company. Despite repeated statements of Price Bros. officials that the company would retain its identity and stay out of any merger, it had been hoped that the entry of Price into the group would be negotiated. The introduction of Lord Beaverbrook into the picture, therefore, represented something of a disappointment to those who had been laying merger plans, but is not looked upon as necessarily upsetting the negotiations.

New Control for Donnacona Co.

From Quebec it is announced that the Donnacona Paper Company, Ltd., control of which has been held for some time past by Price Bros. & Co., Ltd., has now been separated from that control, although Price Bros. & Co. still retain an interest in Donnacona Paper Company. It is understood that a new board of directors of the latter company will be elected soon.

News Print Production Down

For the first five months of 1932 news print produced in Canada was 110,559 tons, or 12 per cent less than for the corresponding period of 1931. This is exactly the same ratio in which production declined in the first five months of 1931 as compared with the similar period for 1930.

Boston Paper Trade Happenings

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 27, 1932—Arthur E. Ham & Sons have become Boston agents for Potomac Torchon Cover, made by the District of Columbia Paper Company, and are stocking this line in their warehouse. This line has a new special finish.

Herbert C. Ham, of this firm, has returned from the tenth reunion of his class, 1922, Massachusetts Institute of Technology. The party, numbering about 75, went to Saybrook, Conn., for the festivities.

Charles W. Fields, of the Baird & Bartlett Company, Dartmouth, 1907, attended the 25th reunion of his class and Warren D. Thompson, of the same company, Harvard, 1907, took part in the reunion of his class. N. F. Davis, of the Davis Paper Company, West Hopkinton, N. H., also Dartmouth, 1907, was present at the celebration at Hanover. He was accompanied by Mrs. Davis and their daughter.

Benjamin C. Spaulding, of the Baird & Bartlett Company, has returned from a vacation in Maine, on which he was accompanied by Mrs. Spaulding.

Nathan S. Clark, of Knight, Allen & Clark, Inc., on Saturday, accompanied Mrs. Clark to Crystal Lake, Gilmanton, N. H., where they make their summer home. Mr. Clark passed the week-end at Gilmanton.

Lieutenant-Colonel Edgar Smalley, managing director of Edwin Butterworth & Co., Ltd., will visit the Boston office of his company in July. He is expected to remain a fortnight.

The paper box plant of the William Carter Company, Needham Heights, Mass., closed today for two weeks.

"God Bless the Depression" is the title of a stimulating article, composed mostly of an anonymous contribution, in the June "How," published by the Tileston & Hollingsworth Company, edited by A. V. Howland. The number contains other inspirational articles, a map of George Washington's Travels in New England, prepared for their friends by the Tileston & Hollingsworth Company, in commemoration of the Washington Bicentennial, an analysis of the June sheet of the T. & H. calendar, and a description of Dorchester Plate, the paper on which the issue is printed.

Erving Paper Mills Addition Planned

ERVING, Mass., June 27, 1932—It is understood that an addition to the Erving Paper Mills is contemplated, but that it is indefinite when the project will go ahead. Sketches have been prepared.

Chicago Paper Market Continues to Mark Time

Demand for Various Standard Grades of Fine Paper Spotty, With No Change of Importance Reported—Steadiness Generally Characterizes the Kraft Wrapping Paper Division—News Print and Ground Wood Papers Unchanged

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., June 27, 1932—A series of bank closings, all of them outlying banks in the Chicago area, put a damper on any improvement that might have been looked for in the local market during the past week. Markets, even aside from this fact, marked time for the most part, exhibiting little tendency to strengthen. Some observers are rather looking for a bulge upward during the latter half of July, saying that an improvement usually does register then and that this year, more than ever before, demand will register rather quickly because of the condition of stocks. Ground wood and news print markets were two of those that did not, according to reports, exhibit any change during the week. The fine paper market was spotty, there being little or no change of any consequence. The kraft fraternity is still doing everything within its power to keep things on a even keel and the market is reported as steady. Jobber outlets here are finding the going tough and collections slow due to existing business conditions. Books and covers are unchanged. The market for paper board is reported quiet. Waste papers are in little demand, reflecting the general position of the entire market.

Paper Salesmen Hold Golf Outing

A big crowd of members of the Middle West Division of the Salesmen's Association of the Paper Industry and guests journeyed out to the sporty Sunset Ridge Country Club on Friday, June 24, to get in on the second of the monthly golf tournaments staged by that organization. With Courtney Reeves, of Allied Paper Mills, as the master of ceremonies the event, from luncheon and golf and on to the dinner in the evening, was a huge success in every way. Those who can, in any way, trump up a reason to attend these outlings should not overlook the bet if they are anywhere near the vicinity. The fun, the golf, and the competition, is making it one of the most interesting golfing events in these parts. Prize winners were as follows:

Low net (handicap of 17 or under) won by Hal Leahy, LaSalle Paper; low net (handicap 17 and over) won by Greg Frielinger, Butler Paper Corporation; low putts, Harry Johnson; low net first nine holes, Harrison Baldwin, Hammermill Paper Company; low net second nine holes, Ernie Brown, Jr., Lawrence Bag; Blind Bogey, Tom Willis, of Kansas City; low putts foursome was composed of George K. Gibson, of Mosinee; Tom Willis; Ernie Brown, Sr., and Ernie Brown, Jr.; low net foursome, Ray Russell, Marathon Paper; Al. Weisner, Bermingham & Prosser; Tom Saltzman, Rockwell-Barnes and Horace Tracy, American Envelope. Low gross on odd holes went to Guy Beckett, of the Beckett Paper Company. The next event is scheduled for July 22 at the Westmoreland Country Club.

Chicago Paper Association's Activities

Leo Altholz, Inlander-Steindler executive, who has been given charge of arrangements for the annual golf outing of the Chicago Paper Association, reports that July 13 will find not only members of the association on hand but also a number of mill representatives and quite a few guests. More than fifty golfing enthusiasts are expected out at the Glen Oaks Country Club for the luncheon, golf and combination dinner and entertainment in the evening. The association is continuing a heartening study of business principles and practices, giving especial attention to the matter of short weights and measures, as discussed in the recent evening dinner meeting by Joe Grein, Chicago City Sealer.

News of the Trade

C. B. Lindstrom, for nearly twenty-five years identified with the Paper Mills Company, Chicago, and for a number of years sales manager of that concern, has realized a life long desire to become connected with the mill end of the paper business by accepting an executive position with the Watervliet Paper Company, of Watervliet, Mich.

An interesting mailing describing Peacock Folding Enamel has been issued by Bermingham & Prosser. Printed on 100 pound white high-finish enamel it contains a price list covering thirteen sizes of white high-finish, a number of sizes in white dull finish and other numbers in India, high and dull and ivory, high and dull finish. A full color reproduction adds to the beauty of the sheet. The Chicago paper house also includes a printed specimen of 8-ply KaZoo Litho Blank, coated on two sides, together with some interesting copy on the type of paper to use for worthwhile poster display effects.

An informative display of fine printing at the Newberry Library, Chicago, which has attracted the attention of a large number of paper men, will continue until July 1 according to an announcement made, signifying the interest displayed by advertising men and printers in the display.

D. A. Biddle has been appointed as general accountant and credit executive of the Dwight Brothers Paper Company to succeed Miss A. C. Hedner, well known executive of that concern who died early in June. Mr. Biddle has had many years of experience in the accounting field.

The Swigart Paper Company sends out a letter of "News in the Envelope Business" describing Krystal Klear Outlook envelopes and containing samples. The letter gives a prominent position to a discussion of the window features of the envelope; on its transparency, adherence to the stock of the envelope, and freedom from shrinkage or warping. Prices are also included.

The Heco Envelope Company services its customers by mailing out a handy little four page folder listing the changes in postal rates effective July 6. One side of the inner two pages gives the old rates and the other side contains the changes as included in Section 1001-A.

Swedish Pulp Market Slow

WASHINGTON, D. C., June 29, 1932—Reports to the Department of Commerce state that the Swedish pulp and paper market continues to show life. The strike situation is unchanged. Some few sales are being booked, but only for extremely small lots. The reduction in the British duty on wrapping papers from 50 to 20 per cent has not been reflected by increased orders. Exports to other markets are handicapped by currency restrictions, import quotas, and similar legislation adopted by customer countries with a view to cutting down imports.

Canadian Paper Box Manufacturers Convene

Industry from Coast to Coast Represented at Meeting Held in Bigwin Inn, Lake of Bays District—General Spirit and Tone of Discussions Pitched in Hopeful Key—Clinic and Round Table Packaging Conference Features Event

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., June 27, 1932—The paper box industry from coast to coast was represented at the annual convention of the Canadian Paper Box Manufacturers' Association which was held at the Bigwin Inn, Lake of Bays District, on June 20 and 21, while a number of the paper trade and box board mills also took part in the deliberations. It was generally agreed, as far as the paper box industry is concerned, that while the various companies had come through a quiet period, and were still being affected by depressed business conditions, there was good reason to believe that the turn of the tide was in sight and that the paper box trade had seen the worst of hard times. While no definite prognostications nor promises held out, the general spirit and tone of the discussions were pitched in a hopeful key. There is undoubtedly a fine spirit of cooperation in the industry and this was exemplified by the splendid gatherings at the business sessions as well as the many social functions dispensed for the entertainment of the visitors. As a combined outing and business meeting the convention was a success. The association's activities for the year were outlined by the managing secretary H. V. Hodder who discussed present conditions in the industry and made suggestions for the future which will be considered by a committee appointed for the purpose.

An outstanding feature of the gathering was the clinic and round table packaging conference in which certain boxes presented by the consumer where he had a sales problem were subjected to analysis and discussion. These led into the realms of the creation of ideas, manufacturing and sales of containers of all descriptions, and drew from Ben Nash, of the Products Development Company, New York, an excellent summing up of the comment made by the various members. Mr. Nash also gave a talk on "Where Do We Start to Increase Sales." E. R. Complin, personnel manager, General Motors of Canada, Ltd., discussed the subject, "Promoting Factory Efficiency," "Unfavorable Losses" was handled by F. A. Fielder, of Toronto, while G. M. Hobart, of the Sommerville Paper Boxes; London, Ont., gave an address on "Successful Selling vs. Buyers' Market," and F. A. Fielder conducted "Everybody's Hour" with successful results. Officers were elected as follows: president, George M. Hobart, London; vice-president, F. A. Fisher; directors, T. A. Moisan, Montreal; George Boehmer, Kitchener; J. A. Northey, Toronto; Luke Morrison, Toronto. H. V. Hodder was again appointed managing secretary. During the convention the supply section met under the chairmanship of W. B. Bennett.

Fine Advertising Art Series

The Fred W. Halls Paper Company, Ltd., Adelaide street, Toronto, have mailed out to the paper and printing trades the first of a series of reproductions of historical scenes in the life of Toronto. The very fine picture just to hand depicts the light house at Gibralter Point, on Toronto Bay, erected by the Government in 1808. It is pointed out that just ten years previous to that date the first order for paper was sent from Upper Canada to England by Louis Roy, printer at Newark. His order read: six bundles of printing demy; eight reams of printing crown; ten reams of printing post; six reams of folio foolscap, plain; eight reams of quarto post, plain; four reams of quarto post, gilt; four reams of quarto post, black edge.

Britain's Imports of Wood Pulp

Recent press reports emanating from Ottawa state that Canada is supplying a good share of the wood pulp requirements of Great Britain. It would appear as if such statements were not justified in any way by the actual figures. Great Britain imports annually a large quantity of pulpwood. In 1930 the total was 1,063,848 dry tons of 2240 lbs. but of this vast amount Canada supplied only 18,591 tons, an insignificant proportion. For the first four months of the current year, which are dealt with in the press reports mentioned, Canada has shipped no mechanical pulp at all. It had been broadcast that in this period the British imports of mechanical wet pulpwood amounted to 307,868 tons, of which Canada supplied 190,823 and Finland next with 75,258 tons. These figures are regarded as somewhat absurd in Canadian pulp and paper circles. If Canada had shipped this large quantity why, it is asked, are our mechanical pulp mills closed down? A glance at the official Canadian customs returns show no shipments whatever of mechanical wood pulp to Great Britain this year. The total shipments from Canada of this grade of pulp since the first of the year amounted to 24,062 tons, and all of this amount went to the United States. Canadian shipments of mechanical wood pulp in 1931 amounted to 164,995 tons, of which 129,238 tons went to the United States and only 25,757 tons to Great Britain. The British trade returns show imports of mechanical wet wood pulp for the first four months of this year amounting to 307,867 tons, of which Norway supplied 190,823 tons, Finland 75,258 tons and Canada none. Great Britain uses over 1,000,000 tons of wood pulp annually, including chemical pulp and mechanical pulp, and by far the greater part of this quantity is supplied by the three Northern European countries, Norway, Sweden and Finland. Germany supplies some chemical pulp but Canada's share in the market is very small. Canada is the only wood pulp producing Dominion and supplies practically no wood pulp to the British market.

Suspends Rates on News Print

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 29, 1931—The Interstate Commerce Commission has suspended until January 20 the operation of certain railroad schedules which propose to establish commodity rates on news print paper, in carloads, from points in New York on the Delaware & Hudson Railroad to New York City and points taking the same rates, via the Pennsylvania Railroad, which are higher than class rates over the same route.

The Commission points as an example that the present rate from Glens Falls, N. Y., to New York City is now 21 cents per 100 pounds and that the proposed rate would be 25 cents.

Activities of Fox River Valley Paper Mills

Office Building of Whiting-Plover Paper Co., at Stevens Point, Wis., Completely Remodeled—Quarters Are Now Occupied—Building Houses Laboratory and Constant Humidity Room for Testing—Structure Possesses Many Modern Features

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 27, 1932—Complete remodeling of the office building of the Whiting-Plover Paper Company, Stevens Point, Wis., has been accomplished and the quarters are now occupied. The building is two stories high and was rebuilt in colonial effect, with pillared entrance and surrounded by attractive landscaping. The brick exterior has been given a white coating, and the trim, blinds and shingles are green.

A beautiful private office of paneled walnut and carpeted floors was included for E. A. Oberweiser, president. Another room similarly appointed is provided J. H. Miller, manager. Half of the upper floor houses the laboratory, which was moved from the mill. The remainder will be a constant humidity room for paper testing.

Features of the building are dual lighting, with indirect light and ultra-violet sunlight lamps; acoustic treatment for quiet; ventilating system with washed and filtered air and a summer cooling system; automatic telephone system and new steel office furniture.

Kimberly Memorial Building Ceremonies

Nearly two hundred paper manufacturers were present at the simple ceremonies held last week to lay the corner stone of the J. A. Kimberly Memorial Building at the Institute of Paper Chemistry, Lawrence college, Appleton, Wis. Participants included 35 members of the Writing Paper Manufacturers Association, who were holding their quarterly meeting at the North Shore Country club, near Neenah, Wis. The building is the second to be erected for the Institute, and most of the funds were donated by J. C. Kimberly, president of the Neenah Paper Company, in memory of his father, the late J. A. Kimberly, one of the founders of the Kimberly-Clark Corporation.

Dr. Henry Merritt Wriston, president of Lawrence College, opened the program with an address in which he declared that "even though the first building, designed a year ago with a view to simplicity, flexibility and size, seemed at first very adequate, our needs ran beyond our faith, and we were crowded almost as soon as we moved in. In the first place, the new building was needed because the library was not anticipated, and was forced into one room in the present building. Because of the low prices an extremely large number of books were purchased, making present housing facilities too small."

The second factor, explained Dr. Wriston, was the real need for adequate research laboratories, another need that had not been entirely anticipated. All research work will hereafter be carried on in the new building. The instruments cannot be used in the same building with heavy machinery in operation.

Another speaker was Ernest Mahler, vice president of Kimberly-Clark Corporation, and president of the Institute's board of trustees. He paid tribute to J. A. Kimberly, deceased, a pioneer in developing research into the technical problems of the industry. The industrialist took part in paper manufacture for more than sixty years, Mr. Mahler said. Addressing J. C. Kimberly, donor of the building, he said: "In behalf of the trustees of the Institute of Paper Chemistry, I wish to thank you for the gift and I will assure you that this library will be kept as an honorable memorial to your father."

The corner stone was laid by Mr. Kimberly, after brief remarks in which he urged unified support of the Institute.

Members of the Writing Paper Manufacturers Association met in the morning at the North Shore club house to discuss mutual problems, had luncheon there at noon, and returned after the corner stone ceremonies for an afternoon of golf and a dinner in the evening.

News of the Industry

Two tax appeals have been filed at Washington by the Kimberly-Clark Corporation, Neenah, Wis., involving $40,922.67 assessed against 1927 and 1929 incomes as federal tax deficiencies and $25,948.33 more sought by the company in refunds. The appeals involve largely claims of insufficient sums for depreciation and deductions properly allowable and not given.

Employment of men for reforestation in return for their room and board is proposed by E. W. Tinker, Milwaukee, regional U. S. forester. He has plans which take care of 1,000 single men housed in camps, whom he believes would work for their keep, if assured food and clothing. The work would be done in Wisconsin, Michigan and Minnesota.

Non-union workers who took the place of striking union men at the plant of the International Wire Works, Menasha, Wis., are the cause of disturbances resulting in the arrest of two men, and warning to others. About fifty union wire weavers have been gathering at the plant at quitting time to heckle the men. In one instance, the strike breakers were "egged" and police were obliged to interfere.

Walter L. Mead, of the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis., is building a private swimming pool on land he purchased on the Wisconsin River. The tank will be 20 by 160 feet in size, spring fed. The pool is only a short distance from the Mead home. Bridle trails also are being built through the property.

Lawrence Zurfluh, an employee of the Nekoosa-Edwards Paper Company, Nekoosa, Wis., was killed last week when he slipped from the foot board of a log loader and was run over by the locomotive before he could escape.

Mason Regulator Co. Opens New Office

The Mason Regulator Company, of Boston, Mass., manufacturers of automatic regulating and control equipment announce the opening of a new office in Chicago at 1525 East 53rd street. The office will be in charge of William P. Gearon who has represented the Mason Company in Chicago for the past five years.

This office will also be occupied by the Neilan Company, Ltd., a division of the Mason Regulator Company. The Neilan representative is Arthur J. Foley. The new telephone number of this new office is Midway 10221.

CANADIAN TECHNICAL MEN MEET AT ST. CATHARINES

(Continued from page 9)

L. C. Anderson of the same company; J. Benjamin Beck, E. B. Eddy Company, Ltd., Hull, P. Q.; G. D. Bearce, New Brunswick International Paper Company, Dalhousie, N. B.; J. S. Bates, Price Bros. & Co., Ltd., Quebec, P. Q.; H. A. Barson, English Electric Company of Canada, St. Catharines, Ont.; H. C. Barbour, International Paper Company, New York; Otto Brauns, Abitibi Power and Paper Company, Ltd., Sault Ste. Marie, Ontario; B. C. Brown, Canadian International Paper Company, Three Rivers, P. Q.; George Carruthers, Interlake Tissue Mills Company, Ltd., Merritton, Ontario; E. J. Calnan, Ontario Paper Company, Thorold, Ontario; I. H. Copeland, Canadian International Paper Company, Three Rivers, P. Q.; A. P. Costigane, Ontario Pulp and Paper Makers Safety Association, Toronto, Ont.; W. B. Campbell, Forest Products Laboratories of Canada, Montreal, P. Q.; D. B. Chant, Abitibi Power and Paper Company, Ltd., Sturgeon Falls, Ontario; R. Collins, Consolidated Paper Corporation, Three Rivers, P. Q.; A. B. Copping, International Paper Company, Glens Falls, N. Y.; John Campbell, International Paper Company, Glens Falls, N. Y.; P. F. J. Dolan, Alliance Paper Mills, Ltd., Merritton, Ont.; D. R. Dick, Howard Smith Paper Mills Company, Ltd., Cornwall, Ontario; J. C. Day, E. B. Eddy Company, Ltd., Hull, P. Q.; E. S. Dunham, Montreal, P. Q.; J. A. De Cew Process Engineers, Inc., New York; J. Devin, Ontario Paper Company, Ltd., Thorold, Ont.; W. W. Eliason, Ontario Paper Company, Thorold, Ont.; V. P. Edwardes, International Paper Company, New York; F. W. Elliott, Howard Smith Paper Mills, Ltd., Cornwall, Ont.; A. E. H. Fair, Alliance Paper Mills, Ltd., Merritton, Ont.; J. M. Fear, Anglo-Canadian Pulp and Paper Mills, Ltd., Quebec, P. Q.; L. E. Fleck, Alliance Paper Mills, Ltd., Merritton, Ont.; G. P. Genberg, Fraser Companies, Ltd., Edmundston, N. B.; F. J. Giffen, Canadian-International Paper Company, Three Rivers, P. Q.; W. Grant, Tammers & Maase, Ltd.; A. F. Gallaugher, Interlake Tissue Mills Company, Ltd., Merritton, Ontario; J. Hewitt, Toronto, Ontario; J. W. Hunter, Consolidated Paper Corporation; G. I. Hoover, Provincial Paper, Ltd., Thorold, Ontario; Ralph Hayes, Ontario Paper Company, Thorold, Ont.; John Herring, Thwing Instrument Company, Philadelphia, Pa.; M. H. Jones, Ontario Paper Company, Ltd., St. Catharines, Ont.; B. J. Jones, same company, Thorold, Ont.; J. A. Jaeger, same company; H. E. Karberg, Alliance Paper Mills, Ltd., Merritton, Ont.; G. J. Lane, Canadian International Paper Company, Gatineau, P. Q.; J. R. Leslie, Alliance Paper Mills, Ltd., Merritton, Ont.; H. B. McAdam, Ontario Paper Company, Ltd., Ontario; H. R. Murdock, Champion Fibre Company, Canton, N. C.; R. G. Macdonald, secretary of TAPPI, New York; J. O. Mason, Consolidated Paper Corporation, Grand Mere, P. Q.; W. C. Munro, *Pulp and Paper Magazine of Canada*, Gardenvale, P. Q.; W. D. Mosher, Shawinigan Falls, P. Q.; D. L. McLeod, Ontario Paper Company, Thorold, Ont.; J. E. Patterson, Abitibi Power and Paper Company, Toronto, Ontario; W. J. Parks, Interlake Tissue Mills Company, Ltd., Merritton, Ont.; G. W. Pauline, Alliance Paper Mills, Ltd., Toronto, Ont.; J. H. Ross, Forest Products Laboratories of Canada, Montreal, P. Q.; C. A. Sankey, Price Brothers & Co., Ltd., Quebec, P. Q.; R. T. Steedman, Abitibi Power and Paper Company, Ltd., Smooth Rock Falls, Ont.; H. C. Schwalbe, Dill & Collins Company, Philadelphia, Pa.; A. A. Scott, Anglo-Canadian Pulp and Paper Mills, Ltd., Quebec, P. Q.; Arthur Schmon, Ontario Paper Company, Thorold, Ont.; R. W. Sterns, Abitibi Power and Paper Company, Ltd., Toronto, Ont.; William Whyte, Montreal, P. Q.; C. W. Walker, Canadian-International Paper Company, Three Rivers, P. Q.; W. A. Woodruff, Alliance Paper Mills, Ltd., St. Catharines, Ont.

Indianapolis Paper Market Dull

INDIANAPOLIS, Ind., June 27, 1932—With the exception of summer specialties, the paper market here is a little dull, going into the summer season in about the same volume that was expected. In spite of the end of the school year, there is a fair demand for fine papers. The dullness on the part of advertisers and their direct by mail campaigns has influenced the fine paper market adversely, however. The printing trade leaders here declare there is nothing now in sight to indicate any increase in this business, though some of the firms are expected to ing paper trade has been benefited accordingly.

Demand for building papers is in fact, a little better than had been expected. Just why this is causes some comment. Nothing was foreseen earlier in the year that would make this particular state one of the leaders in building this year, but statistics show it is and the building paper trade has been benefitted accordingly.

The summer season, of course, has stimulated demand for tissues and summer specialties. Paper plates, napkins and such items are moving with more than usual activity, due perhaps to the fact that dealers last fall carried over but little stock. Big plans are being made for a record business during the holiday period provided, of course, weather conditions are suitable.

The container trade, while a little spotted, according to some factory executives, is perhaps in better shape than most of the remainder of the industry. Most of the factories report a good volume of business and their plants are working in good shape. The paper bread wrapper business continues to dominate the business, insofar as activity is concerned. The Indiana factories are working to capacity with no indication of any slump.

The bag market is in fair shape, with all krafts holding their own in the price range in spite of a demand which is none too encouraging.

Paper stock here is a drug on the market. Mills are buying only in small quantities.

Paper Mill Employment

WASHINGTON, D. C., June 27, 1932—Paper and pulp and paper box employment decreased in April compared with March and with April of last year according to reports received by the Bureau of Labor Statistics, Department of Labor.

Reports received from 420 paper and pulp mills gave their April employment at 81,239 a decrease of 1.8 per cent from March and of 6.8 per cent from April of last year. The weekly April payrolls in these mills amounted to $1,611,715, a decrease of 6.3 per cent from March and of 24.2 per cent from April of last year.

The Bureau also received reports from 325 paper box factories which gave their April employment at 22,116, a decrease of 1.1 per cent from March and of 11.6 per cent from April last year.

Obituary

George A. Galliver

HOLYOKE, Mass., June 22, 1932.—George Alfred Galliver, widely known financier and president of the American Writing Paper Company, Inc., from 1918 to 1923, died suddenly of a heart attack at his winter home in Tavares, Fla., this morning.

Mr. Galliver, who had been in various business enterprises since 1890, came to the American Writing Paper Company as president in 1918, and directed that concern until the election of Sidney L. Willson as president, January 1, 1932, after which Mr. Galliver and his wife left to make their home in Orange, N. J. They have spent much of their time in Tavares since then, while Mr. Galliver continued his active interest in the financial firm of Galliver & Rockefeller, in which he was associated with Beveridge Rockefeller, nephew of Percy Rockefeller.

While here he and Mrs. Galliver at first lived in the present Dr. Frank A. Woods home in Linden street, and later resided on Silver street, South Hadley. Mr. Galliver was a trustee of the Holyoke Hospital and was active in other civic enterprises here.

He organized the research laboratory of the American Writing Paper Company with a view to modernizing papermaking methods and has since seen his plan bring many improvements in the industry.

His chief hobby was astronomy, and he was rated one of the outstanding amateurs in this science. He was a physician, with an M. D. degree from Harvey Medical College, Chicago, before going into business.

His wife, Lillian Campbell, whom he married July 7, 1901, at her home town, Deland, Ill., was also a physician. They had no children and Mr. Galliver leaves no near blood relatives.

He was born in Ingersoll, Can., Jan. 9, 1872, son of Henry and Mary J. (Luscombe) Galliver, and went to Albion (Mich.) college, before taking up medicine.

He was sales manager for the United States Graphite Company from 1890 to 1892; secretary-treasurer of the Chicago Paint Company in the following year; president of Merkel & Co., commission house, until 1895, superintendent and later sales manager of the Monarch Cycle Company and the Chicago Sewing Machine Company for the next two years and for the first two years of this century was sales manager of the American Bicycle Fanufacturing Company at Chicago.

Then he branched into the lumber business and served as general manager of the Stearns & Culver Lumber Company of Florida from 1902 to 1905. He was connected with a half dozen companies, including investment and public utility concerns until 1909, when he started an eleven-year term as president of the Central States Electric Corporation. He was also vice-president of Federal Utilities, Inc., Republic Railway and Light Company, Mahoning & Schenango Railway and Light Company and the Flintlock Company of Detroit at this period.

The presidency of the Electric Investment Corporation, the Utilities Securities Corporation and the General International Company, Inc., of New York were among his interests immediately before he became American Writing president in 1918. He was also a member of the firm of Schott & Galliver, members of the New York Stock Exchange.

Concerns of which he was a director are: Chicopee National Bank, Adolph Gobel, Inc., Wilcox Products Corporation, Consolidated Electric Sign Corporation, Eastern States Agriculture and Industrial League.

Mr. Galliver's scientific interest led him into membership in the A. A. A. S., astronomical society and various political science associations.

His clubs included the Colony of Springfield, the Engineers', Recess, Old Colony, Embassy, and Sleepy Hollow of New York, Bradburn Country Club of Madison, N. J., and the Yorktown Country Club at Yorktown, Pa.

Rex W. Hovey Gets Patent

In a recent issue of the Times-Globe of St. John, N. B., it is stated that: "Rex W. Hovey, one-time general manager of the Nashwaak Pulp and Paper Company, Ltd., mill, Fairville, and now with the parent company's mill, the Oxford Paper Company, New York, has been granted a patent for an apparatus in connection with the manufacture of pulp, according to advice from Washington, D. C., patent office.

"The despatch says Mr. Hovey filed his application for a patent on July 15, 1926, and that he is allowed one claim for the new ideas in connection with his invention. The patent has not been assigned for manufacture.

"According to a friend here, Mr. Hovey tried out his idea in the Nashwaak mill, but at that time experienced certain difficulties, which apparently he has overcome since then.

"Mr. Hovey came to the Nashwaak mill from the Abitibi Pulp and Paper Company mill at Iroquois, Fills, Ontario, in September, 1926. It was at the Abitibi mill that he developed the first stages of his invention. Leaving here the latter part of 1928 or early in 1929, Mr. Hovey went to New York.

"He is a chemical engineer, a graduate of McGill University and a native of Sherbrooke, Quebec.

"Officially the invention is described as 'An apparatus for cooking pulp which comprises a digester provided with means for introducing a heating fluid into the bottom of the digester at the central axis, a header located near the top of the digester having a series of pipes adapted to withdraw hot liquor from the top of the digester into the header, a pipe leading from the header to the bottom of the digester, a second header located at the bottom of the digester and provided with a series of pipes leading from the said lower header into the zone between the central axis and the periphery of the digester, and a circulating pump between the headers adapted to pump the hot liquor from the top of the digester into the bottom header.' "

Oswego Falls Corp. Suffers Fire Damage

[FROM OUR REGULAR CORRESPONDENT]

FULTON, N. Y., June 27, 1932—The Oswego Falls Corporation suffered damage estimated at $75,000 from a disastrous fire this week which nearly destroyed its plant here. Much of the damage was confined to huge rolls of paper which were stored in a section of the building. The blaze is said to have originated from an explosion caused by a bursting drum of kerosene and spread rapidly through the structure.

It was stated by officials that virtually all of the paper materials used in the production of bottle caps was a total loss. It is understood that the loss is covered by insurance.

Baldwin Heads Writing Paper Group

At a meeting of the Writing Paper Manufacturers Association, held in Appleton, Wis., on Thursday, June 23, Harrison R. Baldwin, general sales manager of the Hammermill Paper Company, of Erie, Pa., was elected president of the Association to succeed Colonel B. A. Franklin.

New York Trade Jottings

Arthur L. Dawe, of the St. Maurice Valley Sales Company, Montreal, Que., was a New York visitor last week.

* * *

J. N. Stephenson, editor of the *Pulp and Paper Magazine of Canada*, who attended the funeral of his brother at New Rochelle, N. Y., last week, spent some time in New York City before returning North.

* * *

The National Association of Waste Material Dealers, Inc., with headquarters in New York, is cooperating with the Writing Paper Manufacturers Association in promoting the use of paper made from rags by furnishing an emblem without cost to members, setting forth the advantages of rag papers.

* * *

The American Writing Paper Company entertained a group of salesmen of the Excelsior Stationery Company, of 115 Nassau street, New York, at its plant at Holyoke, Mass., recently. The tour was arranged by the Beekman Card and Paper Company, New York. The visitors were shown through the Crocker Division and the Coupon Bond Division, as well as the Platner & Porter Division, where cover and book papers are made. The visitors also inspected the plant of E. P. Kellogg & Co., a division of the United States Envelope Company.

* * *

The formation of the Robert Gair Company, Inc., a Delaware corporation, and its acquisition, of all assets of the Robert Gair Company, a New York corporation, was announced last week. The new company assumed all debts, liabilities and obligations of its predecessor. The organization of the new company was the result of a plan submitted to stockholders by a committee, of which F. Winchester Denio was chairman. In response to the committee's request more than ninety-five per cent of the securities of the old company were deposited for the plan. Officers and directors of the old company were elected to serve in the same capacity in the new corporation.

Paper Chemists Available

The Chemical Unemployment Committee at 300 Madison avenue, New York City, report that they have thirteen unemployed chemists and chemical engineers registered who have had one or more years of direct experience in the pulp and paper industry. This experience includes the following classifications: analysis, development, consulting, cellulose, paper board, sales, sulphite, testing, etc.

This presents an opportunity for the industry to obtain experienced, technically trained men that are not ordinarily available.

Since the first of the year the committee has registered 632 chemists and chemical engineers living within a fifty mile radius of New York City and has found jobs for 125 of them. This is a cooperative committee and is sponsored by: American Chemical Society (New York and North Jersey Sections), American Institute of Chemists, American Institute of Chemical Engineers, American Electrochemical Society, Association of Consulting Chemists and Chemical Engineers, Societe de Chemie Industrielle (American Section), Society of Chemical Industry (American Section), Technical Association of Pulp and Paper Industry, American Gas Association, Compressed Gas Manufacturers Association.

Zellerbach Paper Co. Changes

H. L. Zellerbach, president of the Zellerbach Paper Company, has recently announced the following changes in personnel.

Mason B. Olmstead has been appointed manager of those divisions located in the Los Angeles trading area. He assumes these duties, in addition to those of vice-president to which position he was appointed in May, 1930.

In making this appointment, Mr. Zellerbach stressed the fact that the growth of the Los Angeles trading area merited the placement of an executive officer of the company in the South.

Mr. Olmstead has been associated with the Zellerbach Paper Company for five years, his first position being that of assistant to director of sales. On the assumption of the presidency by H. L. Zellerbach, Mr. Olmstead was appointed vice-president in charge of sales, which position he held until he transferred his residence recently to Los Angeles.

Victor E. Hecht has been appointed vice-president in charge of printing paper sales promotion, and will assume his new duties July 1, with residence in San Francisco. Mr. Hecht brings to his new position the experience of twenty-five years with the Zellerbach Paper Company, during which time his activities have been devoted principally to promoting sales in printing paper and assisting those organizations concerned with the upbuilding of the printing paper industry. Although Mr. Hecht's headquarters will be in San Francisco, most of his time will be spent in the field, where his experience will permit him to render valuable assistance to the printing fraternity.

Glassine Co. Wins Safety Trophy

The Glassine Paper Company, of West Conshohocken, Pa., was awarded the annual safety trophy by the Manufacturers' Association of Montgomery County, Pa. Five of the 37 Industrial concerns competing in the third annual safety contest sponsored by the Manufacturers' Association concluded the year 1931 without lost-time accidents. Of these five, the Glassine Paper Company was awarded the safety plaque, its record having been judged as best under the formula for awards which takes into consideration man-hours worked in comparison with hazard of the industry.

The competing companies reported 19,728,472 man-hours worked and 268 lost-time accidents for the year 1931. The accident frequency rate for the period was 13.58 which is a 5.34 reduction as compared with 1930, and a 10.47 reduction as compared with 1929.

Waxed Tissue Simplification

Simplified practice recommendation R125-31, entitled waxed tissue paper is now available in printed form and can be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., according to an announcement by the division of simplified practice of the Bureau of Standards.

This simplification program, which was proposed and formulated by the industry provides for the elimination of many varieties of raw stock used for this material, as well as many sizes of sheets and lengths of household rolls. Of special interest is the elimination of the 400 sheet ream which has been in use in at least one section of th e country.

It is also provided in the recommendation that all packages of waxed tissue paper, including consumer packages and shipping containers, be clearly marked to show quality, size and count.

Robert Gair Co., Inc., Formed

The formation of Robert Gair Company, Inc., a Delaware Corporation, and its acquisition of all assets of Robert Gair Company, a New York Corporation, were completed June 20 at meetings of stockholders of the old and board of directors of the new corporation at the company's office, 420 Lexington avenue. The new company also assumed all debts, liabilities and obligations of its predecessor.

The organization of the new Robert Gair Company, Inc., under Delaware laws was the result of a plan submitted to holders of Class A and Class B stock by a committee, of which F. Winchester Denio was chairman. This plan was recommended by E. Victor Donaldson, president, and unanimously approved by the directors. In response to the committee's request to deposit stock under the terms of the plan, more than 95 per cent of the securities were deposited.

The plan had been declared operative by the committee and the meeting of stockholders of the old company ratified the sale of assets to the new corporation. At the first meeting of the board of directors of the new Company the officers and directors of the old company were elected to serve in the same capacity in the new Delaware Corporation. They are: E. Victor Donaldson, president; Edwin R. Marshall, first vice-president; Wilbur F. Howell, secretary; Emil O. Sommer, comptroller; Ernest Meyer, treasurer; Arthur J. Bauser, assistant treasurer, and George R. Logan, assistant comptroller.

Board of Directors: George W. Gair, chairman of the board, E. Victor Donaldson, George E. W. de Clercq, Grant H. Fairbanks, Robert Gair, Jr., Wilbur F. Howell Edwin R. Marshall, John M. Perry, T. Raymond Pierce, F. Winchester Denio, and Emil O. Sommer.

In a recent letter to stockholders recommending the plan, Mr. Donaldson explained that the company needed to acquire coordinating and complementary manufacturing units to balance its operations and facilitate further progress. This program, he felt, could be accomplished more speedily and satisfactorily by the organization of the Company under Delaware laws.

This is the third change in the company's sixty-eight year history. It was founded in 1864 by the late Captain Robert Gair, pioneer developer of folding boxes, and continued as his personal enterprise until 1903, when it was incorporated under the laws of New York as the Robert Gair Company. From a single loft on Read street, in which the business was started, the company has grown to the point where it now operates seven mills and fabricating plants in New York, Massachusetts, Connecticut and Illinois.

Government Paper Bids and Awards

WASHINGTON, D. C., June 29, 1932.—The Government Printing Office has received the following bids for 2,015 sheets of buff card board: Whitaker Paper Company, at $54.60 per M.; R. P. Andrews Paper Company, $75.00; Mathers-Lamm Paper Company, $32.50, $29.70 and $57.50; Virginia Paper Company, $37.50; Old Dominion Paper Company, $39.37; Walker Goulard Plehn Company, $39.50, and $54.00; and Reese & Reese, Inc., $37.75, and $52.50.

Tamm & Co. of New York City has been awarded the contract for furnishing the Government Printing Office with 1,000 sheets of 22 x 28 machine finish marble book paper at 5.5 cents per pound, bids for which were received on June 15.

Kalbfleisch to Introduce Snowhite Process

Arrangements have been completed whereby the Kalbfleisch Corporation is to act as the agent of the Snow-White Company, Inc., to introduce its new cold water process for reclaiming waste paper. This new process has been commercially proven and the Kalbfleisch Corporation states that it only became interested after making a careful survey of present methods and costs, as compared with the savings to be effected by this latest development.

A contract has been made with the Snow-White Company, Inc., which has patents pending covering both the Snowhite Process and the chemicals used. The Snow-White Company, Inc., has contracted with the American Paper and Machinery Engineering Works, Inc., of Glens Falls, N. Y., to furnish the specially designed machinery and equipment for use with the Snowhite Process.

The equipment is very simple in design and construction and is all standard, but has never before been assembled for use in a combination chemical and mechanical process for deinking and defibering waste paper.

The paper stock is continuously fed into the Pulper, either by hand or over a belt conveyor, without any previous shredding, soaking or cooking; the water and chemicals being fed in continuously under automatic control. As soon as the stock is worked down sufficiently to be drawn off through an 1/8 inch screen it passes through a consistency and quantity regulator to an APMEW Hydrator which will completely brush away any flakes which may have been left by the pulper, and will also break up any particles of dirt so that they can be readily removed.

No rifflers or other similar devices are necessary as the staples and other heavy materials will drop to the bottom of the Pulper to be removed through a specially designed trash trap; the strings, etc., being removed by an ordinary string catcher.

The stock from the hydrator will then pass through an inward flow centrifugal separator screen which automatically returns any stock which requires further work to the pulper, and passes the screened stock on to the pulp and dirt separators and pulp washers. These machines not only thoroughly wash the stock but separate any particles of dirt or carbon by centrifugal force. From this point on the stock may be handled through the customary bleaching process.

It is stated that the time of the cycle from waste paper to finished pulp can be cut from the customary 10-15 hours in the ordinary processes to not exceed 3-4 hours by the Snowhite Process. While they do not object to the use of water at around 120 to 130 degrees, for most stock they find that the work can be accomplished equally well with water at normal summer stream temperature without any heat or steam.

The necessary chemicals for use in connection with the "Snowhite Process" will be developed and marketed by the Kalbfleisch Corporation under suitable trade names, and it is stated that the cost of these chemicals used per ton of waste paper treated, will be approximately the same as those consumed in the present day cooking methods.

While the installation of a limited amount of new equipment is necessary, this cost will easily be absorbed by a decided improvement in the quality of the reclaimed paper waste and a material saving in production costs. Besides, it is stated that arrangements have been made by the Kalbfleisch Corporation whereby this installation can be paid for out of the savings effected.

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Chicago, Ill.—The Murray Envelope Corporation, 4201 Belmont avenue, has leased a one and three-story building at Sacramento, Grand and Chicago avenues, totaling about 50,000 square feet of floor space, and will remodel and equip for new paper products and converting plant. Work will be placed under way at once and early occupancy carried out. It is understood that company will remove present works to new location.

New York, N. Y.—The Robert Gair Company, Inc., has been organized under Delaware laws with capital of $7,000,000, 560,000 shares of preferred stock and 1,900,000 shares of common stock, to take over and succeed to the company of same name, with headquarters at 420 Lexington avenue, New York, manufacturer of corrugated and fibre boxes and containers, with plants at Brooklyn, Piermont and Tonawanda, N. Y. The new organization plans a general expansion program, including acquisition and establishment of new allied and complementary manufacturing units, balancing present line of output. George W. Gair is chairman of the board; E. Victor Donaldson, president; and Edwin R. Marshall, vice-president.

Franklin, Ohio—The Cheney Pulp and Paper Company is said to have plans maturing for the rebuilding of portion of mill, recently destroyed by fire, followed by a second fire at later time. The reconstruction is reported to cost over $50,000, with equipment.

Hoboken, N. J.—The Automatic Paper Machine Company, 311 Pine street, Elizabeth, N. J., has leased a one-story factory building, 125 x 200 feet, to be constructed on Ferry street, Hoboken, by the R. B. Davis Company, 38 Jackson street, Hoboken, manufacturer of baking powder, etc. It is understood that the new plant will be given over to the manufacture of corrugated and other paper boxes and containers. General contract for erection has been let to the Walter Kidde Constructors, Inc., 140 Cedar street, New York. Walter Kidde & Co., Inc., 60 West street, Bloomfield, N. J., an affiliated organization of contracting company, have been engaged as engineers for the plant, which is reported to cost over $75,000 with equipment.

Malden, Mass.—The Barrett Company, 40 Rector street, New York, manufacturer of roofing papers, tar products, etc., has plans maturing for the initial units of proposed new plant on large tract of land recently acquired at the foot of Commercial street, Malden, fronting on the Malden River. Work will include several buildings, tanks and other structures, including wharf. Portion of new plant, it is understood, will be used for production of roofing specialties with other division used for manufacture of road materials. The plant will replace the present branch works at Everett, Mass., which will be removed later to the new location. The project is reported to cost more than $150,000, with equipment. P. J. Passen is company engineer, in charge, New York office.

New York, N. Y.—The Empire Boxboard Corporation, care of Melvin L. Krulewitch, 39 Broadway, representative, is said to be planning operation of a local plant for the manufacture of boxes, cartons and kindred containers.

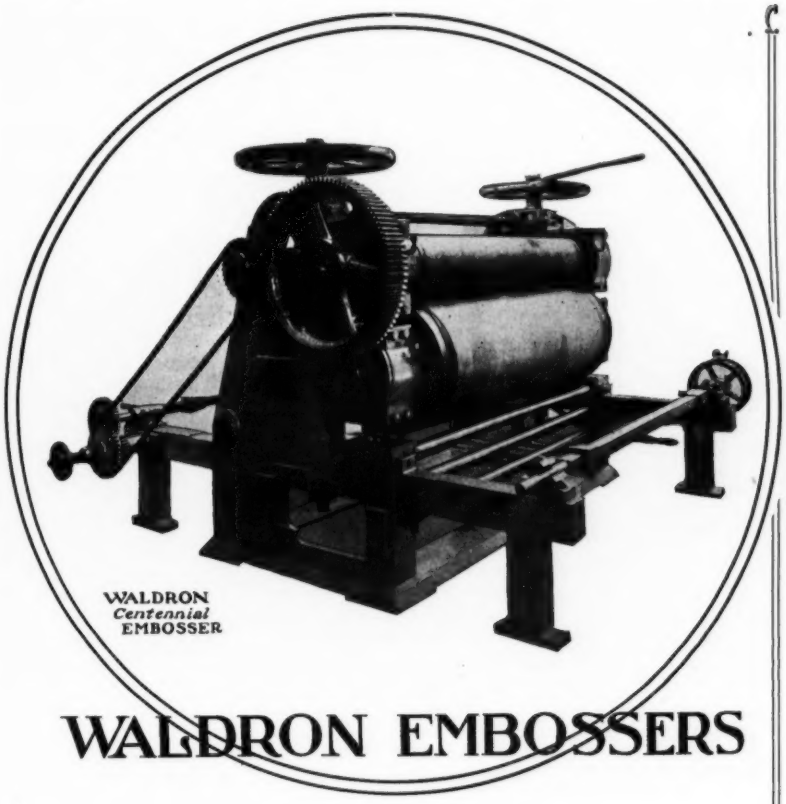
Whippany, N. J.—McEwen Brothers, manufacturers of folding box board, chip board, etc., have resumed operations at their local Eden Mill, following an agreement with employees on the basis of a reduction of 5 cents an hour in wage schedule. Three shifts of workers will be employed. Arrangements are reported to have been made for a consolidation of production of the Eden and Malapardis Mills, with the latter plant, heretofore giving employment to about 100 men, to continue inactive until business conditions warrant. The output at the Eden Mill will be increased correspondingly. Richard McEwan, Jr., has recently been appointed manager at the last noted plant, and William Wilson continues as superintendent. It is understood that the Newark Boxboard Company, Ferry and Blanchard streets, Newark, N. J., will continue independent and will not be affected by the consolidation of the Whippany mills. The Newark company is an interest of Frederick and Frank McEwan, brothers of the owners of the Whippany plants.

Marion, Ind.—The Lindly Box & Paper Company, Marion, has been reorganized under the same company name, to manufacture paper boxes and containers, etc. The new capital stock has been arranged at $300,000 and 15,000 shares of common stock, no par value.

Rochester, N. Y.—The International Latex Corporation, recently organized by A. M. Spanell, 103 Crouch street, Rochester, and associates, with capital of 250 shares of stock, no par value, is said to be planning the operation of a plant for the manufacture of fibre products. Alfred W. Dunbar, 31 Exchange street, Rochester, is one of the incorporators of the new company.

Orange, Tex.—The Commercial Pulp and Paper Company, occupying the former local mill of the Yellow Pine Paper Mill Company, is pushing its remodeling and improvement program at the plan, including installation of additional equipment, and it is expected to have the unit ready for service at early date. The company will also carry out expansion at the mill, with construction of two new one-story units, 85 x 175 feet, and 60 x 175 feet, respectively. This work is scheduled to proceed in the near future. The mill will be arranged for a maximum output of about 80 tons of finished paper stock per day.

Camden, N. J.—The Aetna Box Company, lately organized by John C. Groves, Collingswood, N. J., and Edward H. Flemming, Camden, is said to be planning



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operation of a local plant for the manufacture of corrugated and other paper boxes and containers. The new company is represented by Bleakly, Stockwell & Burling, Camden, attorneys.

Philadelphia, Pa.—Fire, June 23, destroyed a portion of the waste paper storage department of the Container Corporation of America, Nixon street, Manayunk. An official estimate of loss has not been announced, but is reported as slight.

Selkirk, Man.—The Manitoba Flax Fibre Company, Selkirk, is said to be planning the early rebuilding of portion of mill, recently destroyed by fire. An official estimate of loss has not been announced.

New Companies

Chicago, Ill.—The Celinpulp Corporation, 431 South Dearborn street, has been incorporated with a nominal capital of $5,000, to manufacture and deal in pulp and paper products. The incorporators are G. S. McLaughlin, R. J. Higgins and J. W. Dorgan.

Wilmington, Del.—The Ajax Paper Company, care of the Corporation Guarantee and Trust Company, Citizens Bank Building, has been incorporated under state laws with capital of $10,000 and 20 shares of stock, no par value, to manufacture and deal in paper products.

Chicago, Ill.—The Standard Manifold Company, 219-21 West Chicago avenue, has been incorporated with a capital of $5,000, to deal in paper products and kindred specialties. The incorporators are Lester K. Williams and Curtis W. Catron, 854 North Clark street. Last noted is company representative.

Brooklyn, N. Y.—The United Paper Specialties Company, Inc., has been incorporated with a capital of $20,000, to manufacture and deal in paper products. Humberto R. Muxo is one of the incorporators. Company is represented by Joseph J. Dreyer, 26 Court street, Brooklyn, attorney.

Strike Continues at Union Bag Plant

[FROM OUR REGULAR CORRESPONDENT]

HUDSON FALLS, N. Y., June 27, 1932—Prospects of a settlement of the strike at the mill of the Union Bag and Paper Corporation soon are regarded as remote with both sides remaining firm. The company is determined to operate under the open shop and production is again under way in both the Allen and Fenimore divisions where it is estimated that about 150 strikebreakers are working. Several carloads of paper turned out since the strike started are now being prepared for shipment to the bag factory of the company in the Middle West. It is expected that the remaining equipment at the Fenimore plant will start up in the near future.

Officials stated that both plants are running 24 hours daily and that the manufactured product is of good quality. The company has expressed its willingness to take all the strikers back but remains firm in its decision not to recognize the unions. Workers in neighboring mill towns have been attracted to the scene but have been urged to seek jobs elsewhere by union officials. Non-union employees are being escorted to their positions by a squad of police but despite these precautions several have been assaulted.

A meeting of the striking employees was held this week at which addresses were delivered by labor officials. Matthew J. Burns, president of the International Brotherhood of Papermakers, stated that the open shop as advocated by the company is a crusade against unions and organized labor and that conditions in the industry throughout the country were intolerable previous to the organization of labor unions.

Liquidate Union Trust Co.

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 28, 1932—Probably the most important event in the history of the city since the disastrous flood in 1913, when Dayton and the entire Miami Valley were stricken, is occurring this week when steps are being taken for the liquidation of the Union Trust Company, by the Winters National Bank and Trust Company, as Trustee.

Just when the future looked blackest, this national banking institution, which is one of the strongest in the country with resources of $20,000,000 and which is one of the oldest, dating from 1818, considered the plan submitted by several paper manufacturers, business men, merchants and industrialists and decided to take over the liquidation at 100 cents on the dollar, with the approval of the state and national banking department officials.

Today a loan for $3,000,000 was obtained by the Winters bank from the Reconstruction Finance Corporation and this amount will be added to $5,000,000, already in possession of Union Trust officials, and which will give a total of $8,000,000 for distribution to depositors by July 15.

This will mean a distribution of 5 per cent to all depositors and will place immediately in circulation in Dayton and vicinity $8,000,000.

No other one incident can so materially help the community as the payment of this amount and the assurance that the remaining deposits will be paid off in dividends to be distributed as they become justified by borrowers meeting their obligations to the Union Trust and the payment of stockholders' double liability, suits for which were filed against 212 stockholders last week by Attorney General Bettman.

Three of the largest depositors in the Union Trust represent three of the biggest paper mill concerns in Dayton and the valley and it was largely on the strength of their encouragement that the Winters bank undertook the liquidation plan. Nearly 20,000 depositors had filed their written consent to reorganization plans as presented by a committee, but the larger depositors held out against it and when some attorneys opposed the proposal on the ground that the reorganization plan would not stand the legal test, it was found necessary to liquidate.

Effect of Humidity on Litho Papers

At a recent meeting of the Advisory Committee of the Lithographic Technical Foundation for cooperative research at the Bureau of Standards on printing properties of lithographic papers, a research program for laboratory study of effect of humidity relative to misregister of prints was approved. The need for more exact data of this kind was made apparent by the experimental studies of misregister causes carried on during the past year in a commercial printing plant. In these studies representative samples of lithographic papers were subjected to experimental printings and their reactions to the printing processes noted. Attempt will be made to correlate these reactions with the physical properties of the papers by careful laboratory measurements of the properties under various hygrometric conditions. Relative to conditioning, such factors as rate of conditioning, direction of approach to the desired condition, rate of air flow, and spacing of the sheets of paper, will be studied. The changes in dimensions of paper under varying atmospheric humidity conditions and tensions are particularly important relative to register of prints and this property will be given prime attention.

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Installation in Pulp Mill of Weyerhaeuser Timber Co. at Longview, Washington

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BRIGHTER PROSPECTS

While the first half of 1932 has witnessed no reversal of the long downward movements in business activity and in price levels, there has at least been a clearing of the atmosphere during the past month that gives some promise of brighter prospects, states the Guaranty Trust Company of New York in the current issue of *The Guaranty Survey*, its monthly review of business and financial conditions in the United States and abroad.

"Some dissipation of the pall of gloom that has hung over the situation since last autumn is here and there evident, and there is even the suggestion that the forces of liquidation may have spent themselves and the forces of recuperation may be about to operate," *The Survey* continues.

As a survey is made of the last six months, the importance of this changing attitude may be realized. Many bogies that public apprehension created have been disposed of in that period. There was the fear that this country would be forced off the gold standard and was facing complete economic catastrophe. Foreign security selling and the export of gold followed persistently; but with the final export of foreign balances, that spectre disappears. Fear of deflationary banking legislation again possessed the public mind, but Congress will apparently adjourn without enacting such legislation. Fear that we might not balance our national budget again obsessed us, but the new revenue law and attendant economies give assurance of our purpose to preserve the credit standing of the nation beyond question.

Many minor fears disturbed the situation and obsessed the minds of men at intervals, such as fear of a prohibitive tax on security transactions, the possible passage of the soldiers' bonus legislation, and the various plans for inflation. None of these fears has been realized, and with their disappearance one by one the atmosphere has been cleared to a considerable extent. The presidential election still looms as a disturbing factor, largely imaginary, for its actual economic influence will be of little importance.

The formation, early this month, of a $100,000,000 corporation to acquire sound securities at present low prices for indefinite holding by a number of large banks is expected to have a favorable effect on security markets. The organization of the committee of twelve bankers and industrialists at New York last month to find ways of giving effectiveness to the expansion of Federal Reserve credit has been followed by the formation of similar committees in several other Federal Reserve districts, including Boston, Philadelphia, Cleveland, Richmond, and Atlanta. The withdrawal of the last remaining short-term balance of the Bank of France from this market has practically removed any danger of further large drains on the American gold stock in the early future. The report of the League of Nations committee on gold, openly advocating the earliest possible return to the gold standard throughout the world, has improved the outlook for international currency stabilization.

Until public confidence has been further restored and nervousness further reduced, fluctuating markets are inevitable; but with the progressive banishment of bogies, quiet but impressive strength should follow. Such a movement would be greatly stimulated if the European conferences at Lausanne and Geneva should result in any approach to agreement and concord.

Despite the passage of the revenue law, it is not yet certain that a balanced budget for the coming fiscal year will actually be achieved, even without allowance for the probable passage of the $500,000,000 unemployment relief bill. Important economies are needed to close the gap between expenditures and revenues, as now estimated; and Congress has not yet agreed on how all of those economies shall be effected. Moreover, the estimates themselves are subject to wide margins of error.

Aside from these uncertainties, there are two specific ways in which the balance may be upset. On the revenue side, the budget contemplates the resumption of war-debt payments at the close of the moratorium period on June 30. It is very questionable whether such payments will be made. With regard to expenditures, it is possible that an absence of any substantial increase in employment during the summer and autumn may oblige the Federal Government to adopt relief measures on a scale far beyond anything that has yet been seriously considered. This is a question that will not arise until Congress reconvenes next December; but as long as employment remains at its present low level, the uncertainty will continue to be a factor of major importance in the outlook for governmental finance. It is by no means impossible that by next winter a need for further tax increases may have become clearly apparent. By that time, the burdensomeness of the rates imposed by the new law will have been impressed on taxpayers throughout the country; and it is not unlikely that, rather than submit to unnecessary further increases in tax rates, public opinion will force much more drastic steps than have yet been taken to reduce public expenditures.

Warden Charges Stream Pollution

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 28, 1932—When the question of stream pollution by paper mills comes up in this section of Ohio, there is usually a difference of opinion as to the cause thereof, especially if the offenders are paper mill owners.

A case in kind came up the past week when thousands of dead fish were found in the Little Miami river, near Xenia, and state officials were notified that the pollution apparently came from Massies Creek, into which the waste water from the storage ponds of the Hagar Strawboard and Paper Company, at Cedarville, near Xenia, is emptied.

M. B. Troutman, assistant to E. L. Wickliff, chief of the research division of the Ohio Conservation Commission, who was sent here with others to make a thorough probe of conditions, found no pollution in Massies Creek above Cedarville, or in the Little Miami river above its junction with the creek.

E. D. Stroup, Green county fish and game warden, said the fish had been smothered to death by a fibrous substance which got into their gills. This fiber-like substance is said to have come from the paper mill ponds the contents of which were released when heavy rains occurred, to make possible the washing down stream of the foreign matter as speedily as possible. The wholesale slaughter of fish in the Little Miami river followed a series of heavy rains.

Mr. Stroup gathered as evidence a quantity of bass, catfish, carp and other species which he said died from the smothering due to choked-up gills. Mr. Stroup said the paper company was fined $1,000 on a charge growing out of similar conditions 12 years ago.

The refuse is kept in ponds, and it is the custom to release this substance after hard rains into Massies Creek. The official said he learned the reservoirs were opened at 6 P. M. Saturday, following a hard storm and were not closed until Sunday evening, and that one of the ponds had been drained out. It should be said to the credit of the Hagar paper concern that it has installed equipment at a heavy cost to prevent stream pollution and takes more than ordinary precautions against poisoning streams.

Friendly Receiver for Malone Paper Co.

For practically the past year the Malone Paper Company, Malone, N. Y., during the illness and subsequent to the death of its then president, L. F. Lehr, has been operated by a committee of three, C. E. Kilburn, F. B. Clark and L. Bittner. During the operation of the paper mill by the committee its problems have been well handled but a continuance of unsatisfactory market conditions and the extended industrial depression have left the company with some lack of immediate working capital with the results that those interested in the company including both creditors and stockholders decided that the best interests of all concerned required the appointment of equitable receivers.

Accordingly on June 22, 1932, the creditors and stockholders met with United States District Judge Frederick H. Bryant at Malone, N. Y., and discussed the matter with the Court, after which an order was made and entered appointing Clarence E. Kilburn, of Malone, N. Y.; Charles H. Clark, of Malone, N. Y., and Louis Bittner, of New York, N. Y., as such equitable receivers.

The action taken was entirely friendly and was done for the purpose of conserving the property and in the expectation that the receivership would place the company again under a sound basis. The company owns assets in excess of their liabilities and the plant is in good physical condition.

The mill will be operated as in the past and its products will be marketed under its own well known brands. There will be no interruption of either manufacturing or sales and it is hoped by all concerned that the receivership management will be so successful that it can within a short period of time be discontinued.

Allege Violation of Trade Commission Act

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 29, 1932—Formal complaint has been issued by the Federal Trade Commission against Bird & Son, Inc., of East Walpole, Mass., for alleged violation of the Trade Commission Act.

In its complaint the Commission defines "binder board," "chip board," "laminated chip board" or "pasted chip board" and "laminated binders board."

The Commission states that "the product of the respondent designated, described and labeled by the respondent, as 'Laminated Binders Board' is not the product known in the bookbinding, publishing, and paper board industry as 'Laminated Binders Board' in that it is not composed of 'Binders Board' laminated or pasted together, but is in truth and in fact the product known in the bookbinding, publishing and paper board industry as 'laminated Chip Board' or 'Pasted Chip Board.' The said term 'Laminated Binders Board' as used by the respondent is false and misleading, and has the tendency and capacity to mislead and deceive many persons in the bookbinding, publishing, and paper board industry into purchasing said product in the belief that it is the product commonly known as 'Laminated Binders Board' and that the said product has the characteristics and qualities of the product long known and described as 'Binders Board' or 'Laminated Binders Board.'"

Russian Wood Arrives at Albany

ALBANY, N. Y., June 27, 1932.—Two vessels containing several thousand tons of Russian pulpwood docked here last week and several others are expected to follow. The unloading of the first ship was delayed for a few days because of a disagreement between the International Paper Company and the Amtorg Trading Corporation. It is understood that the paper concern requested a statement from the consular agent at Leningrad before accepting the cargo.

Plans call for many more similar shipments of the Russian product during the year under arrangements made by the paper concern. The greater portion of the pulp wood is to be shipped to mills in Northern New York while the remainder will be stored at the local port.

A vessel carrying a large cargo of pulp from Sweden is scheduled to arrive here next week and arrangements for shipment by barges to the mills of the Union Bag and Paper Company have been made. The company is said to have contracted also for large foreign importations.

Lindley Box & Paper Co. Reorganizes

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., June 27, 1932—Officials of the Lindley Box and Paper Company of Marion, Ind., have filed papers with the secretary of state here showing the reorganization of the company with 3,000 shares having a par value of $100 each and 15,000 shares of stock having no par value.

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Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

Pulp and Paper Industry Literature Review

Abstracts of Articles and Patents Compiled by the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson, C. E. Peterson and Clarence J. West, Chairman

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Sulphite Process

Treatment of Residual Liquors from Pulp Manufacture by the Use of Alkali Metal Sulphite Cooking Solution. Linn Bradley and Edward P. McKeefe assignors to Bradley-McKeefe Corp. U. S. pat. 1,833,313 (Nov. 24, 1931).—The residual liquor is evaporated and its residue is calcined and smelted, the resulting melt is dissolved and the solution may be treated (suitably by use of sulphur dioxide) to decompose sulphide present and form a thiosulphate cooking liquor. Numerous details and modifications of procedure are described.—A.P.-C.

Digesting Wood with Monosulphite Cooking Liquor. Viggo Drewsen assignor to Bradley-McKeefe Corp. U. S. pat. 1,830,315 (Nov. 3, 1931).—Deciduous short-fibered wood is digested with a monosulphite cooking liquor at a sufficiently high temperature and in sufficient proportion to yield a spent liquor which is only slightly alkaline to litmus at the end of the digestion. A strong fiber suitable for paper making is obtained.—A.P.-C.

Pulp from Resinous Wood. Linn Bradley and Edward P. McKeefe assignors to Bradley-McKeefe Corp. U. S. pat. 1,830,461 (Nov. 3, 1931).—The wood is cooked under a pressure of about 110 to 140 lb. per sq. in. and at a corresponding temperature with a cooking liquor containing an amount of normal sodium sulphite equal to at least about 30 to 35% of the air dried weight of the wood.—A.P.-C.

Pulp from Resinous Woods. Linn Bradley and Edward P. McKeefe assignors to Bradley-McKeefe Corp. U. S. pat. 1,830,421 (Nov. 3, 1931).—The wood is treated with a liquor containing essentially a normal sulphite of an alkali (e.g., sodium sulphite) to effect impregnation of the wood with the liquor before reaching the active cooking temperature, and the pulp making operation is then continued with a quantity of sulphite in the cooking liquor sufficient to maintain the liquor alkaline to litmus during the cooking operation.—A.P.-C.

Comparative Characteristics of the Methods for Determination of the Degree of Cooking of Sulphite Pulp. N. Perekalskii. Bum. Prom. 10, no. 7:30-35 (1931); C. A. 26:1776.—Investigation of various methods for determination of the degree of cooking of cellulose ("hardness" or bleach requirement based on the content of lignin) leads to the conclusion that the method of Björkman is most reliable.—C. J. W.

Influence of Cooking with Relief Liquor on the Color and Other Properties of Sulphite Pulp. S. Fotiev, M. Eliashberg and M. Martuinov. Bum. Prom. 10, no. 4:34-45 (1932); C.A. 26:1776.—A discussion of the properties of pulp obtained by the Hiller method installed at the "Soko" works.—C. J. W.

Method for determining the Degree of Disintegration of Sulphite Pulp. Carl Kullgren. Svensk. Kem. Tid. 43:161-174 (1931); C. A. 26:2315.—A review is given of the different methods of determining lignin in sulphite pulps and a new method is described, based on a determination of the sulphonic acid or the amount of sulphur in the sample.—C. J. W.

Method of Controlling the Quality of Cellulose in the Process of Sulphite Cooking. B. Milov. Bum. Prom. 10, no. 2:32-51 (1932); C. A. 26:2315.—Relation of reaction of the cooking liquor and of temperature to the quality of cellulose is discussed.—C. J. W.

Wood Chips. III. Cultivation of Yeast in Waste Liquors of the Sulphite Cellulose Process. Oskari Routala. Acta Chem. Fennica 4:115-121 (1931); C. A. 26:1775.—A review is given the process used in the utilization of sugars from sulphite pulp waste liquors in the production of bakery yeast. The investigation shows that the sulphite yeast compares well with yeast cultivated in molasses in regard to color, odor, taste and stability, as well as in its effectiveness in raising bread in baking.—C. J. W.

Influence of Spruce Lignin on the Property of Sulphite Pulp. S. Fotiev, A. Giller and N. Perekalskii. Bum. Prom. 10, no. 9:6-15 (1931); C. A. 26:1775.—*Pisces excelsa* used exclusively in U. S. S. R. and Western Europe for production of cellulose for preparation of viscose, nitro-lacquers, etc., is influenced by climate, location, the conditions of growth, etc. The object of the

investigation was to determine how these influences affect the resulting sulphite cellulose and which kind of lignin is best suited for production of high-quality sulphite pulp.—C. J. W.

Miscellaneous Digestion Processes

Production of Pulp. A. E. White assignee of Mead Pulp and Paper Co. Brit. pats. 339,333, 339,334, 339,599 (Aug. 28, 1929).—High yields of pulp of good color and strength suitable for high-grade printings are obtained from grasses, woods, etc., particularly hard woods (saw-mill waste, tanning extract waste), by a mild digestion with a substantially neutral liquor (sodium sulphite and sodium bicarbonate) at 160° to 180°C. for 1 to 4 hrs. while maintaining the pH at 5 to 9, opening up the cooked and washed chips in a rod mill, and following by a 2-stage chlorination treatment (first stage at low consistency, second stage at high concentration in a special chlorinating tower). The chlorinated pulp is washed through a water-seal at the bottom of the chlorinator by jets of water, steeped in 0.1 per cent caustic soda solution for 30 min., and bleached at a consistency of about 5 per cent with hypochlorite solution containing 1 per cent of active chlorine on the dry weight of the pulp.—A.P.-C.

Production of Cellulose from Straw. Elton R. Darling assignor to Cornstalk Products Co. U. S. pat. 1,829,852 (Nov. 3, 1931).—Straw is prepared for fiber liberation by boiling it with nitric acid solution of about 2 per cent strength.—A.P.-C.

Purifying Cellulose Fiber. George A. Richter assignor to Brown Co. U. S. pat. 1,829,110 (Oct. 27, 1931).—Cellulose fiber, such as that from wood, is treated with a cuprammonium solution of sufficiently low concentration to effect a substantially selective action on the non-alpha-cellulose components of the fiber.—A.P.-C.

Decomposition of Vegetable Fibrous Substances to Obtain Simultaneously the Cellulose and the Incrusting Ingredients. T. Kleinert and K. Tayenthal. Brit. pat. 357,821 (Oct. 27, 1930).—The fibrous material is heated above 150°C. under pressure with mixtures of 20 to 75 per cent of water and alcohols (methanol, ethanol, glycerin), with addition, if desired of less than 0.1 per cent of an acid or alkali, or a salt with an acid or basic reaction. During the heating process the decomposing agent is repeatedly renewed.—A.P.-C.

Cascade Digestion of Vegetable Materials to Obtain Cellulose and Digester for Carrying Out the Process.. E. C. Benthall and E. Spencer. Brit. pats. 322,741 and 322,754 (Sept. 10, 1928).—*No. 322,741*—The digester consists of cylindrical vessels containing a perforated plate near the bottom and one or more cone-shaped projections in the plate terminating below the upper level of the material being treated. The extraction liquid is circulated through the mass by means of vomit pipes which shower the liquid over the top of the charge. *No. 322,754*—In working with a series of digesters on the cascade principle the vomit pipes are closed before opening the lower valve of one digester to pass the liquid to the next. In this way the steam pressure in the upper part of the digester blows the liquid through the extracted mass, leaving it in a semi-dry state.—A.P.-C.

Production of Fibrous Material From Wood, etc. D'A. M. Clark assignee of Respats, Inc. Brit. pat. 339,528 (Jan. 11, 1930).—Waste wood or other ligneous material, preferably in a wet state and optionally after a mild digestion under pressure with water or caustic soda, is mixed with an abrasive agent such as sand or broken stone and ground to pulp under heavy pressure in a type of edge-runner. Wood of high resinous content may require two digestions, each followed by milling, but the cooking operations should be of such a character that the greater part of the gum and resin is retained by the fiber. The pulp, after separation of the abrasive agent, may be used for heat-insulating boards, or may be molded to form panelling.—A.P.-C.

Beating

Treatment of Paper Pulp. Intercontinental Rubber Co., assignee of G. H. Carnahan. Brit. pat. 338,389 (Dec. 4, 1929).—After removal of non-cellulose encrusting materials, the pulp is hydrated by subjecting it repeatedly to a squeezing and rubbing action, in the presence of water, between rubber surfaces of the tumbling elements in a tube or a ball mill.—A.P.-C.

Manufacture of Paper. A. E. White assignee of Mead Research Engineering Co. Brit. pat. 341,226 (Dec. 7, 1929).—The raw pulp obtained by the process of Brit. pat. 339,334 shows reduced chlorine consumption if it is pretreated, preferably during disintegration in the rod mill, with cold dilute (0.25 to 1 per cent) caustic soda.—A.P.-C.

Drum-Type Mill for Paper and Pulp Manufacture. U. Kirchner and G. Strecker. Brit. pat. 343,364 (March 27, 1930).—In a mill comprising a drum rotating in one direction and internal "mullers" rotating at centrifugal speed in the opposite direction, the mullers are connected to each other and to the shaft by linkwork which ensures that when one muller is pressed inwards by a large or hard piece all the others follow suit. With such an arrangement the rotating system remains in balance and the centrifugal weight of all the mullers is available to crush a piece under one of them.—A.P.-C.

Bleaching

Purification of Fibrous Materials. Firm of Julius Glatz. Fr. pat. 707,002 (Dec. 3, 1930).—Fibrous materials are freed from incrustations, particularly from lignin, by a short treatment of the bleached or unbleached fiber with an alkaline bleaching liquor, with or without the addition of solvents for resins and swelling agents such as borax, soda, Turkey-red oil, etc. As soon as the liquor has penetrated the fiber a dilute acid is added until a weakly acid reaction is produced and the chlorine liberated transforms the lignin residues into a form soluble in water or alkali.—A.P.-C.

Bleaching Kraft Pulp. John Neumann. U. S. pat. 1,828,-338, (Oct. 20, 1931).—For bleaching kraft pulp to a dead white, the pulp is cooked to free the fibers from incrusting substances and is then treated with a bleaching agent containing oxalic acid and sodium chloride.—A.P.-C.

Sizing

Processing for Sizing Paper. Edward J. Johnstone. U. S. pat. 1,834,844 (Dec. 1, 1931).—Substantially anhydrous finely divided rosin size is added while the fibers are suspended in water at ordinary temperature.—A.P.-C.

Sizing Paper. André Monestier. Fr. pat. 708,674 (April 3, 1930).—Compositions for sizing paper are made by intimately mixing kaolin, clay or other aluminous material with water at about 90 deg. C. and then adding sulphuric acid of 60 deg. Baumé. The product obtained may also be used for purifying water.—A.P.-C.

Sizing Paper. Arthur C. Dreshfield assignor to Paper Makers' Chemical Corp. U. S. pat. 1,836,455 (Dec. 15, 1931).—There is added to the stock a size in the form of an impalpable powder consisting of a resin saponified with an alkali and alum in the proportion of about half as much size as alum (the alum and the size being preliminarily mixed in the dry condition).—A.P.-C.

Infusible Artificial Masses. Hans Kappeler. Swiss pat. 146,-561 (June 12,1929); C. A. 26:2287.—Furfural is treated with acetaldehyde in the presence of acid condensing agents. The product is a black, hard gum-like mass resistant to acid and alkali. It is used for impregnating wood, paper, cellulose, etc., before it sets.—C. J. W.

Fillers

Paper Filler. Mead Pulp and Paper Co. assignee of J. J. O'Connor and D. F. Morris. Brit. pat. 341,733 (Feb. 4, 1930).—Fibrous material is cooked with caustic alkali and the spent

liquor is evaporated to dryness, incinerated, lixiviated, filtered, and causticized with lime. The lime sludge precipitate is separated, ground with water in the presence of alum (which neutralizes the residual alkali and improves the colloidal character of the resulting suspension), and used as a filler for the paper. —A.P.-C.

Paper. Harold R. Rafton assignor to Raffold Process Corp. U. S. pat. 1,834,903 (Dec. 1, 1931).—In making paper filled with alkaline filler, starch is added to a fibrous mix under conditions favoring minimizing time of contact of the starch with the constituents of the mix (suitably at the wet end of the paper machine).—A.P.-C.

Miscellaneous

Manufacture of Transparent Paper. F. K. Wickel. Brit. pat. 342,522 (Jan. 30, 1930).—Highly calendered sulphite paper is impregnated with anhydrous glycerin, sodium lactate, etc., and the surface is coated with albumin or another colloid (colored, if desired). The coating after being dried is subsequently hardened by means of formaldehyde and treated with ozone to eliminate odor; the product is finally calendered and embossed.—A. P.-C.

Production of Fibrous Thermoplastic Sheets. H. Wade, assignee of Bakelite Corp. Brit pat. 356,260 (June 5, 1930).—A reaction resin, *e.g.*, of the phenol-aldehyde type, is mixed with 5 to 45 per cent by weight of a plasticiser, preferably a dialkyl ester of an organic acid such as ethyl or butyl oxalate, tartrate, phthalate, and then rendered substantially infusible and insoluble by heat. This product is comminuted and incorporated with paper pulp in a beater. The resulting dried sheets are then superimposed and bonded together by heat and pressure.—A. P.-C.

Analysis of Bleach, Bleach Liquor and Bleach Sludge*

Tentative Official Standard Method of the Technical Association of the Pulp and Paper Industry

Bleaching powder, often referred to as bleach or "chloride of lime," is made by passing chlorine over slaked lime at a temperature of 40 to 55 deg. C. Chemically it is probably calcium chlorohypochlorite $CaOCl_2$. When treated with water it forms chloride and hypochlorite according to the reaction: $2CaOCl_2 = Cacl_2 + Ca(OCl)_2$. The chlorine from the hypochlorite is the bleaching agent and ordinarily the only determination required on bleach is that of available chlorine. It is generally considered that a good bleaching powder should contain not less than 35 per cent of available Cl.

Bleaching liquor, or "hypochlorite solution," is made from bleaching powder by agitating with water, allowing the mud to settle and drawing off the clear liquor. The liquor generally used for bleaching rags and woodpulp ranges from 5 to 8 deg. Bé, corresponding to 20.5 to 35.5 grams of available chlorine per liter.

Bleach sludge is the "mud" which settles out in preparing bleach liquor. It is important that bleach sludge be tested from time to time to ascertain the available chlorine in the dump. In a bleach that settles well the loss usually ranges from 0.6 to 1.0 per cent of the bleach mixed. If the bleach does not settle well, the loss may be considerably higher.

The determination of available chlorine shall be conducted by the procedures described below.

BLEACHING POWDER

The arsenious acid method shall be used for acceptance tests and in all cases of controversy. The peroxide method may be used for routine control tests.

Sampling

Samples shall be taken from 20 per cent of the drums or containers. A tubular sampler approximately 12 inches long and ½ inch wide, with a concavity of ¼ inch, shall be used. It shall be inserted through an opening in the center of the side of each drum 3 times. The position of the trier upon the first insertion shall be towards the top of the drum, the second in a horizontal position and the third toward the bottom. The samples thus drawn shall be thoroughly and rapidly mixed, coned and quartered

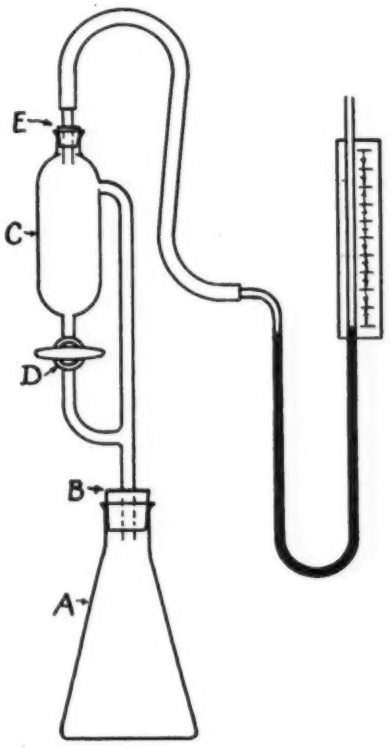

FIG. 1
Mathieson Bleach Tester

* This method has been approved by the Non-Fibrous Materials Testing Committee of the Technical Association of the Pulp and Paper Industry. Suggestions and criticisms should be sent to R. C. Griffin, chairman, 30 Charles River Road, Cambridge, Mass.

in the usual way until reduced to the required amount. The final sample shall be placed in an air-tight glass container.

Arsenious Acid Method

Discard the outside (top layer) of the laboratory sample. Quickly and thoroughly mix the rest of the sample and place a portion in a glass-stoppered weighing bottle. (The bottle must be kept covered while in the balance case, as chlorine is very corrosive). Weigh out from the weighing bottle about 10 grams into a porcelain mortar, add a little water and rub the mixture to a smooth cream with a pestle. Then stir in more water, let settle for a few moments and pour off through a funnel in a liter volumetric flask. Again rub up the sediment with water and pour off as before. Repeat until the entire sample has been conveyed to the flask without loss. Conduct the entire operation rapidly to avoid loss of chlorine. Fill the flask to the mark with water, mix well and pipette out immediately, without allowing the material to settle, 50 cc. into a beaker. Add 50 cc. of 0.1 N arsenious acid solution, stir the mixture well and then titrate back the excess of As_2O_3 with 0.1 N iodine, adding a little starch indicator. Duplicate determinations should always be made. From the amount of As_2O_3 consumed calculate the percentage of available Cl in the bleach.

Calculation: 1 cc. 0.1 N $As_2O_3 = 0.003546$ gram Cl.

Peroxide Method

(a) *Apparatus:* The instrument used for this method is known as the Mathieson Bleach Tester and may be obtained from the laboratory supply houses. It is shown in Fig. 1. It consists of a flask *A*, into which the sample is introduced; a glass bulb *C* for the H_2O_2, connected to the flask with a stopcock and by-pass; and a manometer tube with a specially calibrated scale for reading grams of available chlorine per liter.

(b) *Determination:* Prepare the solution from the powder as described under the arsenious acid method. Then pipette 10 cc. of the well mixed liquor into the flask *A*. Attach the stopper *B* to the glass parts *C* and *D* and insert in the flask with the stopcock *D* closed. Place in the bulb *C* 10 cc. of H_2O_2 solution. ("Dioxygen" is recommended). Insert the stopper *E*. connecting the apparatus to the mercury gage. Open the stopcock *B* and allow the H_2O_2 to run into the bleaching liquor. Detach the apparatus from the spring clips and shake with rotary motion for a few seconds until constant pressure is reached. Read the strength of the bleach liquor in grams of available chlorine per liter on the manometer gage. Calculate the percentage of available Cl in the original bleach by multiplying the reading by 100 and dividing by the weight of the sample in grams.

The reaction is: $2Ca(OCl)_2 + 2H_2O_2 = 2CaCl_2 + 2H_2O + 3O_2$.

BLEACH LIQUOR

Pipette 10 cc. of the liquor into a 100-cc. volumetric flask about 2/3 full of water. Dilute to the mark and mix thoroughly. Pipette 10 cc. of this solution into 25 cc. of 0.1 N As_2O_3 solution and titrate the excess of the latter with 0.1 N iodine as described previously. Since the aliquot titrated is equivalent to 1 cc. of the original sample, the number of cc. of 0.1 N As_2O_3 consumed, multiplied by 3.546, will give the available Cl expressed in grams per liter.

Note: It is necessary to have an excess of As_2O_3. In case the liquor is of such a strength that the above proportions do not allow an excess of As_2O_3, repeat the analysis, using a larger amount of the As_2O_3 before making the back titration.

BLEACH SLUDGE

Sampling

The liquid above the sludge shall be drawn off as closely as possible. The sludge shall then be thoroughly agitated and a representative sample taken.

Arsenious Acid Method

Measure 50 cc. of the well mixed sample into a beaker with a pipette. Rinse the pipette out thoroughly with water into the beaker, add an excess of 0.1 N As_2O_3 solution and titrate the excess with 0.1 N iodine as described previously. The number of cc. of 0.1 N As_2O_3 consumed, multiplied by 0.071, gives the number of grams of available Cl per liter of the sludge.

Peroxide Method

Follow the procedure previously described, using 10 cc. of the sample and rinsing the pipette with water into flask *A*.

Patents Committee Annual Report*

Judging from the rapidly increasing number of inquiries and favorable comments, the committee has succeeded in arousing a great deal of interest in its work among not only the members of the association, but also non-members. Many requests have been received for sets of bulletins issued by the committee. The committee does not have any copies of these bulletins available for distribution and can only refer correspondents to the pages of the Paper Trade Journal where they have been published. Some of the bulletins have also been published in the Textile World.

Bulletins and Editorials Sponsored by Patents Committee

Editorial—"Tappi Appoints Patent Committee"
Paper Trade Journal of Aug. 7, 1930, page 62.

Bulletin 1—"Suppression of Inventions"
Paper Trade Journal of Aug. 28, 1930, page 41.

Bulletin 2—"Protection of Inventions (Trade Secrets)"
Paper Trade Journal of Nov. 13, 1930, page 48.

Bulletin 3—"Patent Protection"
Paper Trade Journal of Nov. 27, 1930, page 55.

Bulletin 4—"Value of Trade-Marks and Slogans"
Paper Trade Journal of Dec. 11, 1930, page 48.

Bulletin 5—"Importance of Securing Patent Protection"
Paper Trade Journal of Mar. 12, 1931, page 44.

Bulletin 6—"Prerequisites for Obtaining a Valid Patent"
Paper Trade Journal of Mar. 26, 1931, page 45.

Editorial—"Invention in the Paper Industry"
Paper Trade Journal of Mar. 26, 1931, page 42.

Bulletin 7—"Patent Searches"
Paper Trade Journal of Apr. 9, 1931, page 43.

Bulletin 8—"Delay in Filing Patent Application"
Paper Trade Journal of May 28, 1931, page 38.

Bulletin 9—"Determining the Scope of the Invention"
Paper Trade Journal of June 11, 1931, page 88.

Bulletin 10—"The Patent Application"
Paper Trade Journal of Aug. 27, 1931, page 33.

Bulletin 11—"Sole & Joint Inventors"
Paper Trade Journal of Oct. 8, 1931, page 43.

Bulletin 12—"Patents and the Employer and Employee"
Paper Trade Journal of Dec. 3, 1931, page 35.

Bulletin 13—"Patent Attorneys"
Paper Trade Journal of Nov. 19, 1931, page 40.

Editorial—"A Single Court of Patent Appeals"
Paper Trade Journal of Dec. 31, 1931, page 20.

C. W. Rivise. Chairman.

* Presented at the annual meeting of the Technical Association of the Pulp and Paper Industry, New York, N. Y., February 15-18, 1932.

Use Requirements Committee Report*

Progress in the use requirements committee activities during the past year can be summarized as follows: (1) the building of a program of work, (2) the organization and selection of personnel, (3) the survey of the paper industry by the subcommittee on use analysis with a questionnaire to determine the state of knowledge and viewpoints on a program for fundamental specifications; and, other subcommittee studies on the selection of standard test methods, (4) the publication of the first paper[1] by the committee presenting the program and personnel assignments.

In building the program of work, considerable effort was necessary to avoid the difficulties and pitfalls of the former attacks on this problem by various works and organizations. We want a program which will develop fundamental values, applicable to all papers and not one that would end up with meaningless definitions and specifications as have frequently been published in the past in which, to cite an extreme example, book paper was specified as "a paper suitable for use in books, bond paper for bonds, newsprint for newspapers, etc."

Considerable progress has been made by the Government Printing Office and Bureau of Standards in their contact with the industry in setting intelligent, though not basic specifications for several grades.

Several attacks were considered for the development of a system for setting specifications for papers. The one selected was evolved from the new basic concepts of paper as an engineering material, conceived by Heritage and developed by Doughty in their work under the joint fellowship of T.A.P.P.I. and A.P.P.A. and by Baird and his coworkers at the U. S. Forest Products Laboratory.

Fundamental Objectives

The four major objectives set up in our program are: (1) to delineate the general sheet properties of paper, (2) to determine these properties in order of importance for each kind of paper and paper board, (3) to select (or to request development of, by the proper committee, where not now available) a standard test method for each property, and (4) to set maximum and minimum values for each property for each specified paper, after having established approximate commercial values.

In the delineation of the properties of a sheet, a consideration of the factors involved has led to the selection of three basic sheet properties: *material, volumetric composition* and *structure.* The selection of these characterizing units was suggested by the parallel of common organic chemical formulas. If we take, for example, the formula C_2H_6O and study its significance we will readily see a simple classification for the basic properties of papers all developed.

From the elements, C, H, and O, named by symbol, we have the combination of *material* or elements which this formula represents. From the subscripts we have the proportion, that is, the physical or *volumetric composition* of the mixture of elements. Then, if we express the way in which these elements are combined or their *structure,* we find at least two common compounds, ethyl alcohol and dimethyl ether are specified. $CH_3 \cdot CH_2 \cdot OH$ and $CH_3 - O - CH_3$.

Thus with paper, C, H, and O could represent fibers, filler, and air. Subscripts 2, 6 and 1 represent the physical proportions or volumetric composition. The structural formula differentiate the way in which the elements are arranged or, as inferred, the structure of fibers, fillers, and air. Nothing more is needed for characterization when each component is completely expressed. However, these basic sheet properties are still too complex for quantitative expression and more definite and familiar terms will have to be used for the present until the latter can be combined into the three fundamental sheet properties.

The general applied sheet properties agreed upon to date are: thickness, density, ream weight, appearance, strength, elasticity, absorbency penetration, physical composition, structure, chemical composition, and permanence.

For further details on general and specific applied sheet properties reference is made to my previous publication[1] on this same subject.

With the delineation of sheet properties practically completed, the second and third objectives of the program were attacked. Subcommittees were organized for the collection of data on the relative importance of the various sheet properties for each use to which paper is put, and for the selection of methods to measure the various sheet properties.

The accomplishments to date of the various subcommittees consist principally of getting organized in each of their fields.

P. K. Baird, Chairman.

Elastic Properties Subcommittee Report

Plans for organization of this subcommittee have not as yet been completed, nor has a definite program of work been adopted. Considerable thought on the part of the chairman has resulted in a tentative formulation of objectives, which has been submitted to a number of members in the industry for their comment and criticism. When these replies are received, the committee will be selected, and definite problems attacked.

Evidence of increasing interest in elastic properties of paper may be seen in two stiffness of flexibility testers which have recently come on the market in this country. Such testers are also in use abroad, on special classes of paper. Several mills are developing or have developed instruments for measuring elasticity under special conditions.

The simplest general plan of attack would seem to be:

(1) Selection of several grades of paper or board in which stiffness — a high modulus of elasticity in bending — is important.

(2) Demonstration of the value of stiffness measurements by some commercial instrument, in evaluating these products.

(3) Expansion to other materials.

(4) Expansion to other elasticities — tension, compression.

(5) Classification of uses on the basis of elasticity requirements.

One immediate piece of work should be publication of a critical bibliography of elastic-properties tests and testing of paper. There is not much literature in this field, but some work on other materials, especially cloth, is so pertinent that it should be included.

It may prove desirable, in cooperation with the papertesting committee and other interested agencies, to do research work in the development of testing instruments and in the study of fundamental factors in elastic properties. In the case of (2) in the working plan just outlined, the papertesting committee should be consulted for a suitable instrument and a tentative procedure.

The field of elastic properties study is a broad one, and one which, so far as the writer is aware, is practically undeveloped. It is hoped that this subcommittee will be able to realize on some of the possibilties in this field.

R. H. Doughty, Chairman.

Chemical Composition Subcommittee Report

In defining the objectives of the subcommittee on chemical

* Presented at the annual meeting of the Technical Association of the Pulp and Paper Industry, New York, N. Y., February 15-18, 1932.

[1] P. K. Baird, Research in the Use Requirements of Papers, Paper Trade J. 93, No. 14, 44-5 (Oct. 1, 1931).

composition of paper, the chairman of the committee states,

"The efforts of the subcommittee should be directed toward the selection and development of test methods to show the true sheet properties. Having accomplished this, representative samples of papers apparently meeting the requirements of all the various uses would be tested and a set of specifications having minimum and maximum values set up."

and again,

"The chemical composition of the material of which a sheet is composed comprises the many chemical components of the fibrous and non-fibrous constituents of the solid fraction and of the liquid and perhaps of the gaseous fractions. Among these are alpha, beta and gamma cellulose, lignin, pentosans, sizings and coatings."

Commercially and industrially we have made less use of the chemical attributes of paper than of the physical ones but in a large per cent of the instances where the physical properties have failed to meet specifications, it is because of some chemical or physico-chemical change which was not considered.

Notwithstanding the evidence in the literature that for the usual papermaking fibers the cellulose unit material is identical, such physico-chemical factors as the length of the chain molecules, the density and arrangement of fiber structure, the colloidal factors of reactivity, as well as the nature and amounts of non-cellulose materials, all have a profound influence upon the chemical condition and reactivity of the fibers and upon paper quality. It is our hope that as the chemical attributes of fibers are further elucidated and as their relations to physical properties are unfolded, we will find in them complete evidence on which to predict the possibilities of fiber and paper quality from unknown materials.

For evidence on the strength qualities of fibers, two tests are finding favor:

1. The viscosity of cuprammonium solution. This test applied to paper gives evidence as to fiber strength independent of other factors of paper strength. The pulp testing committee is proposing this test for pulp quality and the rag paper mills are using it extensively for rag purchasing and processing. Being a test of fundamental fiber quality, its application to paper problems should be further unfolded. More work is needed to be done on the interpretation of results between fibers of different origins and in improving the technique for convenient use. The committee would welcome contributions of research information on this test.

2. The alpha content. This test is a valuable indication of the quantity of strength giving material in a fiber. It gives no indication of the difference in quality of the alpha material from different fibers nor of the non-alpha material, which limits its relation to paper quality. The test is more sensitive to probable degradation in wood paper than in rag paper and its actual value should only be interpreted in connection with the previous history of the paper. Data of continuous observations on this test in connection with quality studies of papers of known history are much needed.

For further evidence on paper quality, the best known tests are:

3. The beta content. This fraction in wood pulp, according to E. Heuser, contains 78.16 per cent of chemically unchanged cellulose. As rag papers become brittle from oxidation the alpha content decrease is largely found in the beta content increase as chemically unchanged cellulose. Since such cellulose in a hydrated state is formed in the beater from the surface layers of fibers and functions largely in developing strength and slowness from beating, it would seem a fruitful field of research to attempt to recover strength by restoring the hydrated form to the beta content of age-brittle papers. Evidence of increasing strength of papers of pure fibers under favorable conditions of storage would be along this line.

4. There is much room for research on the papermaking and paper permanence properties of the hemicelluloses. When the present pulp making processes are pushed to too great a removal of these hemicelluloses, the papermaking properties of the fibers are lost, leaving a product of pure cellulose but suitable only for esterification.

5. The copper number. This is the best test we have for the presence of slightly degraded material. Being a measure of an intermediate product of degradation, it records the difference between the rates at which this intermediate product is being formed and destroyed. When further research discloses more information on the velocities of these reactions, the test should give direct information as to the rate of paper degradation when known to have been stored under continuous conditions for some time.

6. Acidity. The test of total acidity has been widely used on very superficial knowledge of its indications. Being titrated with phenolphthalein, it measures mostly the amount of organic acids present and gives no indication of value unless the history of the paper is known. There is much need for an alteration of the test to distinguish the harmful mineral acidity only. We also need information as to the extent and rate at which neutral mineral acid salts may develop free mineral acid content on aging.

7. pH. This test is theoretically important for measuring the intensity of acid attack, but we must develop a means by which we can measure the true hydrogen-ion condition within the sheet of paper. The water extract of the paper which is now used gives only approximate truths and it is quite possible to make paper in which the pH indications as now taken may be entirely false.

8. Rosin sizing. Rosin as universally used has many advantages for papermaking. The great disadvantage, especially with large amounts, or with paper intended for long life, is in its tendency to accelerate oxidation and brittleness. The rubber industry has successfully developed a number of anti-oxidants and there seems good reason to believe that it should be possible to find the same type of compounds, some that would serve to protect paper from oxidation due either to direct contact with light alone, or when it is accelerated by rosin. Such a development would make rosin a very desirable addition to a paper furnish. Ogden Minton is advocating the use of organic solvent for rosin and thus eliminating the possible danger from acidity. It is possible that from the synthetic resins there may be found a substitute for rosin which will have all of its advantages and not the oxidation tendency. This would help, though an ideal anti-oxidant would be of more value.

The above represent only a few of the many problems of chemical composition of paper which seem most pressing for improving paper quality. The committee would particularly welcome volunteer cooperation towards these and other problems of chemical contributions to the use requirements of paper.

JESSIE E. MINER, Chairman.

Appearance Properties Subcommittee Report

In the summary of the objectives of the committee on use requirements presented by the chairman in the PAPER TRADE JOURNAL of October 1, 1931, the characteristics of *color, gloss, opacity,* and *cleanliness* are mentioned as some of the properties coming under the *appearance* group.

Tentative official methods for measuring gloss and opacity and suggested methods for measuring color require the use of optical instruments. They therefore share the difficulties encountered in applying optical methods to measuring paper characteristics—the inherent possibilities of personal errors and variations are large, the area of sample that may be tested at one time is small and the time consumed in making an adequate number of tests may be considerable.

Discussion continues endlessly as to the relative merits of proposed systems and instruments for measuring or recording color. It would seem to be in order for the committee on paper testing to move towards clarifying this situation with the view of either recommending the adoption of a standard method for measuring the color of paper or establishing the relationships between test figures obtained by the different methods now in use.

The limitations of the Ingersoll Glarimeter in measuring the degree of finish of paper are generally understood. For comparing papers of similar texture, gloss measurements made with this instrument have proven to be valuable. The matters of texture and the compound effects of finishing operations and their relation to surface smoothness seem to be so closely bound up with questions of paper structure as to require extensive cooperative study directly with interested mills.

In this connection a problem has arisen in connection with measuring the rates of change in the surface appearance of papers subjected to handling or other conditions affecting their appearance. Considerable experimenting has not yet led to the development of any mechanical device that will "wear" the surfaces of test pieces uniformly enough to permit the use of present optical instruments in measuring the degree of change.

Efforts are being continued in many quarters to eliminate human variables in the making of opacity measurements through the use of the photo-electric cell. M. N. Davis, in his report in PAPER TRADE JOURNAL of October 15, 1931, points out some of the inaccuracies which may affect comparisons of different methods for determining opacity. During the year an opportunity was presented for comparing opacity measurements by the contrast-ratio method with photo-electric measurements of over 50 samples of one kind of paper made by one mill. In the region of about 80 per cent opacity the only consistent relationship noted was that the results obtained by the photo-electric cell were higher, to varying degrees, than those by the contrast-ratio methods. The printing industry is deeply interested in the problems of applying measurements of opacity and it would seem that there is a profitable field for cooperative study of use requirements along this line.

This subcommittee plans to cooperate with the paper testing committee in any way possible to help in the development of improved test methods and apparatus for appearance properties in order that it might have available a suitable group of methods to measure values for use requirements.

G. K. HAMILL, Chairman.

Use Analysis Subcommittee Report

To obtain the viewpoint and possible cooperation that might be expected from the paper industry in the work of this committee, a questionnaire was sent out requesting information which will be of much value in selecting and arranging the essential properties which need to be specified for a partial set of specifications for various grades.

An analysis of the results of the survey shows that 30 per cent of the mills expected to return the questionnaire in a completed form have done so. We have been told that this is a very satisfactory yield and from several accompanying letters of commendation, we feel quite satisfied with the support obtained in our study, particularly under present economic conditions.

It also showed a sincere interest to help develop the committee's program, except in a few instances where the viewpoint of "the industry as an art rather than a science" still prevails; a definite support of the scientific viewpoint on the expression of specifications, rather than the artistic viewpoint of expressing sheet properties as "rattle," "feel," "handle," "look through," "strike through," etc.; and a fairly satisfactory state of knowledge and concepts in the industry considering the methods and apparatus available to date for the evaluation of sheet properties.

It has not been possible to date to make any statistical treatment of the data in the questionnaire from the standpoint of the industry's evaluation of the relative values of the several sheet properties suggested to cover various uses. This work will be reported at a later date.

P. K. BAIRD, Chairman.

Patents Committee's Development Report*

By C. W. Rivise[1]

The most important development in the field of patents is the fact that on January 1st of this year, the United States Patent Office moved into its new quarters in the Commerce Building, Washington, D. C. To quote an editorial in the January, 1932, issue of the Journal of the Patent Office Society:

New Patent Office

"The Patent Office will occupy the entire north wing of the Commerce Building, the largest office building in the world. This wing, facing the Treasury and White House, is considered the most desirable office location in the entire Capital. It has been especially designed to meet the particular needs of the Office. The most modern office facilities have been installed including fast elevator service, efficient heating and ventilating, a large search room equipped with new furniture and a spacious, well-lighted library. Each examiner will occupy an individual glass-partitioned cubicle. Much of the congestion in the old building will thus be relieved.

"Divisions which handle closely related arts will be conveniently grouped together. Examiners will thus be able to confer more readily in regard to applications on such questions as requirements of division, cross-searches, interferences and other matters.

"The Patent Office has occupied the old building for nearly a century. Naturally opposition against moving it to its new quarters has been expressed chiefly on sentimental grounds. The need for more room and up-to-date facilities, however, has outweighed such sentimental considerations.

"With the new facilities available to the Patent Office, the American industries will unquestionably obtain improved service in the field of patents. During the past year, the Patent Office has made great gains in bringing its work up to date. Before long, delays in the Patent Office will be a thing of the past."

Congressional Investigation

Another item of considerable interest is the fact that the Patents Committee of the House of Representatives under the Chairmanship of Congressman Sirovich of New York City is conducting a comprehensive survey of the whole patent, trademark and copyright situation. There have been no fundamental changes in the patent laws since 1836 and the survey is considered necessary to familiarize the members of Congress with the entire situation before it can take up for consideration the many proposals that are being constantly made to improve the system. Hearings will be held in Washington at various times until March 4, 1932.

* Presented at the annual meeting of the Technical Association of the Pulp and Paper Industry, New York, N. Y., February 15-18, 1932.
[1] Chairman, TAPPI patents committee.

Fibrous Raw Materials Developments*

By John Traquair

The fibrous raw materials committee has had to work through correspondence, and the progress report submitted is made up of several individual reports on subjects allotted.

It is hoped to continue this work for another year and cover more fully the waste materials field. This is one of our largest sources of raw materials, and a source from which nearly every grade of paper draws at least a portion of its raw material supplies. It ranges from rags to saw mill waste, from old news to old rope, and grades from insulating boards to ledgers have waste materials as their source.

It is also intended to consider some of the newer or less common potential sources of fibrous raw material supply. New raw materials are continually being suggested and tested, but seldom do they displace or compete with those already in use.

The raw materials in use today, are in use because of definite favorable combinations of fiber length and characteristics, cellulose content, ease of purification and bleaching, suitability for economic processing and conversion, and above all, ample supplies (over supply at present) of standard qualities at low cost. The use of these raw materials yield results either not obtainable or not so easily obtainable by others offered from time to time.

The paper industry is now so developed and specialized and the market condition so onerous that it is not easy for a new material to establish itself in use, as it has to satisfy a number of exacting conditions at one and the same time if it can hope to survive. In fact, no new fibrous raw material has been introduced and survived its industrial birthday these last fifty years.

Actually some 2,000 or more species of plants are known to be potential sources of fibrous raw material, but only a dozen or so have been actually used industrially except, of course, by native craftsmen.

When we consider how the quality, value and output of such plants as cotton, wheat, rubber, etc. have been favorably modified by cross breeding, etc., it is obvious that there are large undeveloped potentialities latent in many of these 2,000 species. At present the world gets along with the utilization of a very few species, but it sometimes get anxious about its future supplies, and may continue to do so from time to time until conservation of resources keeps pace with the increase of consumption.

Although new papermaking materials are not likely to find their way into the mills of industrially advanced countries such as our own, conditions throughout the world are such that this is not the whole story. The spread of education and communications are rapidly bringing new countries into the web of modern civilization, and there are teeming millions in tropical countries and old civilizations who desire not only to read and write, but to enjoy the power, economic and political, which they believe is derived from industrialism. It is predicted that education of sorts may be universal all over the world within the next fifty years; that is, education that creates a demand for cheap reading, writing and wrapping papers. These countries will make use of indigenous local raw materials which cannot compete in older markets, and methods will be devised, as they are being devised, for utilizing them. Behind high tariff walls, and with high freights operating in their favor, cheap grade products suitable for local requirements are being produced, and will be produced in ever-increasing quantities. It is clearly a gain to the whole world that regional industries should thus spring up to make use of low-grade materials for the manufacture of cheap products, which will not stand high freights. The supplying of local demands for cheap grades in this way will eventually stimulate a subsequent demand for better grades, which will be met by supplies from the industrially more advanced countries, as has happened already, in other industries.

It is, therefore, quite likely that the near future will see in use some others of the 2,000 odd available species known to be capable of providing suitable fibrous raw materials, and later some of them may be even welcomed as raw materials for our mills.

Cornstalks[1]

The business depression of 1931 ended a real attempt by the Cornstalk Products Company of Tilton, Ill. to commercially utilize cornstalks for high grade white pulp. With other established raw materials such as sulphite pulp at prices lower than were considered possible two years ago, the economic success of this venture was rendered impossible.

Still, cornstalks remain one of our largest potential sources of cellulose; the acreage under corn in the United States averaged for the decade ending 1930, one hundred million acres, the amount of cornstalks per acre running between 1 and 2 tons. As fully two-thirds of this crop is produced in the corn belt stretching from Ohio to Nebraska, we are safe in saying that there is available one hundred million tons in this section of the United States, and at least fifty million tons in a very concentrated area.

Cornstalks, however, must be harvested, collected, baled and transported to the mill. Minimum costs for cutting and baling are $3.50 per ton with transportation at $1.50 per ton; therefore, the lowest price at which cornstalks are obtainable at mill sites in the corn belt will be $5.00 per ton.

The moisture in the cornstalks varies from 10 to 35 per cent and the pulp yield from 30-33 per cent. Assuming these figures, the cost per ton of air dry cellulose is as follows:

	$5 per Ton	$6 per Ton	$7 per Ton
A. Air dry cornstalks & 33 per cent yield 1 ton air dry pulp requires—3 tons cornstalks .....@	15.00	18.00	21.00
B. 20 per cent moisture cornstalks & 33 per cent yield 1 ton air dry pulp—requires—3.7 tons cornstalks .....@	18.50	22.20	25.90

Assuming a conversion figure of $20 per ton, the cost of pulp at the mill will range from $35-45 a ton in slush form. When there is added to this the cost of drying, marketing, etc., it is evident that the possibility of a profit has disappeared, as against competing pulps in today's market.

Straw

The acreage under cereals has averaged these last ten years:—

Wheat	58 million acres
Oats	42 million acres
Barley	11 million acres

so that the total acreage under these cereals is actually higher than the acreage under corn, the acreage under wheat being practically equal to the combined acreage of oats, barley and rye. Wheat straw was used as a paper making material before wood, and some of our American mills started out using straw as a raw material.

At present straw is mainly used for making straw board and the consumption is about 600,000 tons annually; however, the trend of the straw board industry has been that the mills have been moving slowly westward and replacing straw with waste papers as a raw material.

The production of straw per acre is in the ratio of about 100 pounds of straw per bushel of grain, so that a field yielding 20 bushels per acre of grain would yield a ton of straw per acre. Naturally the production of straw varies greatly with the seasons, and a dry year in any particular district will cut down not only

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[1] References: (a) Cornstalks as an Industrial Raw Material, by O. R. Sweeney and Lionel K. Arnold, Bulletin 98, Iowa, State College of Agriculture & Mechanic Arts, June 18, 1930, Ames, Iowa. (b) The Production of Paper from Cornstalks, by the same authors, Bulletin 100, Iowa State College of Agriculture & Mechanic Arts, Sept. 10, 1930, Ames, Iowa. (c) Farm Products in Industry, by Geo. M. Rommel, pages 98-136. (d) Commerce Yearbook 1931, Vol. 1, U. S.

the yield of grain, but the proportion of straw. Also straw is used on the farms for stock feed, bedding, etc.

Wheat straw has the advantage that the cost of harvesting has to be born by the grain and the wheat straw is actually gathered at a central point or several points in each farm. In this, it has an advantage over cornstalks where the grain can be harvested without harvesting the stalks, and it is also noteworthy that straw is easier to bale and easier to handle than cornstalks; however, little improvement has taken place in the methods of handling the straw or making it more suitable for producing high grade pulp.

The reason for this is that the straw board industry did not demand clean, dry straw, that the quality of the straw was not emphasized. It is unfortunate that the standard threshing equipment after separating the chaff and most of the dirt from both the straw and grain, mixes the chaff and dirt with the threshed straw and blows it all out into the straw pile. Before much progress can be made it is evident that a change would have to be made in the threshing machines so that the chaff and dirt should be blown out into a separate pile and the clean straw also into a separate pile; but it would be preferable that the straw as blown from the threshing machine should be baled right away, because if baled at the time of threshing when it is dry, it could be easily stored and protected, and its transportation undertaken during the winter. A battery of baling machines fed from the discharge end of the blower would eliminate additional handling of the straw, and the baling equipment would be a part of the threshing outfit.

Unfortunately the method suggested of cleaning and baling the straw at the same time as the threshing operation is too revolutionary to be quickly adopted, and a considerable campaign of education not only of the farmers, but of the machinery manufacturers, and of all parties concerned would have to be undertaken before this much desired change could be effected.

In large grain areas the crop is frequently harvested by "heading." The threshed heads should be discarded, from the pulp making point of view, as they are very resistant and unless completely digested yield a pulp showing "shiners" or windows in the finished paper. The straw minus "heads" should then be cut and baled, and would make the most desirable pulp raw material.

Careful farming producing straw tolerably free from weeds would increase its value. The farmer at present gets very little for his straw, but to realize its full value as a fibrous raw material, it must be produced in a form to meet market requirements. The grain now monopolizes all the attention. It is cleaned and graded so that it will command the best market price. If some of this attention was devoted to the straw, the farmer would ultimately benefit, by an increased market and a better price for a clean, dry standard grade of straw.

At present the baling of straw from the scattered straw piles is undertaken by independent groups known as balers, who buy the straw from the farmer, usually at around 50c per ton, bale it and transport it to the nearest mill or shipping point. It is figured that about $4.50 a ton is the lowest price that straw balers can deliver at nearby points and allow themselves a profit on the operation.

The balers have to provide the baling machine, power and labor. Wires cost 30-40c per ton—Transportation costs vary greatly; railway transportation owing to maximum carload being 10 to 12 tons or one-half normal is high and is being replaced by trucks with trailers.

Many farmers truck straw unbaled to local mills and at present deliver straw at $5.00 per ton or even less. Two years ago the price was almost double this figure. Thus the price of straw at a mill in straw raising districts can be taken as from $5-$7 per ton.

The yield of white bleached pulp by a good modern process—such as caustic soda steeping, pressing, digestion, black liquor recovery—usual washing, screening and bleaching is at least 40 per cent air dry pulp.

Air dry straw has an average moisture content of 10 per cent so that 2½ tons straw will yield 1 ton of pulp. On this basis the cost of 1 ton of air dry pulp is:—

	$5	$6	$7
2½ tons Straw @	12.50	15	17.50
Conversion Cost @ $20	20	20	20
Per Ton Pulp	32.50	35	37.50

Slush bleached straw pulp can therefore be produced at from $32.50 to $37.50 per ton allowing a $20 conversion; with a $25 per ton conversion the cost of slush pulp runs from $37.50 to $42.50 per ton.

Even at today's prices for competing pulp, an assured supply of clean, dry straw at the prices given, leaves straw as a potential source of cellulose with interesting possibilities.

Oat Straw

Oat straw is not desired for strawboard as it yields a rather soft board, however, for white pulp the product is suitable for most papers. The yield is 5 per cent lower than for wheat straw, but the chemical requirements are also distinctly lower.

The yield per acre of straw from oats practically equals the weight of grain—thus the average yield of straw per acre will be from 1200-1500 pounds. With an average of only ½ ton per acre, and 42 million acres in oats, the potential straw is 21 million tons; of this about 10 million tons is concentrated in the Northwestern States.

Rye & Barley

These are somewhat similar in character to oats, but the 11 million acres in these crops are more or less scattered. In most cases the straw would be available for mixing with wheat and oat straw.

Rice Straw

Rice is grown mainly in Louisiana where the area under rice cultivation is over 500,000 acres. The yield of straw at ½ ton per acre makes 250,000 tons available; however, only a small proportion of this is used for strawboard. The straw gives results similar to wheat straw and the cost of collecting, etc. is comparable in many respects.

The grain on cleaning yields about 18-20 per cent of its weight of rice hulls which are frequently burnt, but attempts are now being made to utilize them.

Flax Straw

This is an interesting raw material and a long list of papers have been published by the Forest Products Laboratory on the pulping of flax straw, and the utilization of this raw material has been the subject of study for several years. See "A Study of Flax Straw for Paper Making," by John D. Rue, Sidney D. Wells, and E. R. Schaffer, PAPER TRADE JOURNAL, Sept. 25, 1924.

Flax as a source of linen stands in the front rank from a quality and historical point of view. The hand labor required for producing linen from flax has retarded this Old World industry from developing in the United States. The varieties of flax grown for seed purposes are those which give maximum production of branches, and so a high seed yield with a seed of high oil content; however, the seed flax is botanically the same as that growth for fiber and the only difference lies in the strains selected, and the methods of cultivation. The principal areas under cultivation lie North and West of Minneapolis which is the great flax-seed center, and the area under flax averaged 2,580,000 acres for the last 10 years, the seed production being slightly over 20,000,000 bushels annually.

The amount of straw produced varies greatly according to the locality and weather conditions, but ¾ of a ton per acre is considered a good average. Assuming only ½ ton of straw per acre is available, it gives a potential supply of over 1,000,000 tons. Only about 200,000 tons are used in the manfuacture of upholstery tow and insulating materials, the balance of the straw usually being burned.

The bast and shive constituents in seed flax straw differ so radically that a common pulping process has not yet been found to

TAPPI SECTION, PAGE 340

effectively remove the shives without weakening the bast fiber. It is agreed by those who have worked on the subject that the starting point must be flax tow, that is bast fiber freed by mechanical processes as much as possible from the shive or woody material.

The cost of collecting, threshing, baling, etc. of flax straw will be similar to wheat straw to which has to be added the cost of producing the flax tow. No. 1 medium flax tow ranges in price from 3 to 4½c per pound. This price varies with the market and the purity of the tow being offered for sale. Naturally as flax tow is almost pure cellulose, a yield of 80-85 per cent may be expected starting with the tow as raw material.

The two fundamental steps which must be taken before there can be any possible hope of success in utilizing flax straw are: (1) a dependable supply of tow of a grade which will furnish some profit and incentive to the farmer and bear some transportation costs; (2) it must at the same time posses a conversion value which will encourage the development to put on the market a half-stuff for either textiles or paper, directly available for these industries.

If the straw is thoroughly dried the woody portions are embrittled, and by means of an attrition mill and special screens these may be more completely removed. It is unfortunate that the loss of bast fiber increases progressively with the removal of the woody portions. The purer the tow, the smaller the yield.

Hemp

This differs from flax and other cereal straws in that it is cultivated for the fiber alone, which is of value in the manufacture of textiles, ropes, twines and netting. The total area of hemp cultivated in the United States in 1928 was only 3,000 acres and the production 1350 tons. It comes to the paper maker in the form of spinning mill waste and is often mixed with flax fiber. See "Physical & Chemical Characteristics of Hemp Stalks & Seed Flax Straw," by E. R. Schafer & F. A. Simmonds, May 15, 1930.

They state hemp is practically identical with seed flax in both physical and chemical properties. The possibility of growing hemp for paper manufacture in peat marshes and land of low agricultural value is discussed, and it is estimated that fiber may be produced at 7c per pound provided there was a market for at least 1000 tons annually.

Bagasse

Up to a few years ago sugar cane bagasse was used exclusively for fuel although many attempts had been made to utilize its cellulose content. Within recent years the production of Celotex has grown to large proportions. See "The Celotex and Cane Sugar Industries," by E. C. Lathrop, Industrial and Engineering Chemistry, May, 1930, pp. 449. This article deals very fully with the collection, storing and supply of sugar cane bagasse.

The interest in the developments lies not only in the fact that the commercial utilization of bagasse in the manufacture of Celotex products represents what is one of the World's most successful utilization of agricultural by-products, but also because the utilization of this by-product has most profoundly changed the viewpoint in the sugar industry.

The use of sugar cane bagasse as a source of bleached pulp has only been developed on an experimental scale in the United States. In Cuba a factory has been erected and operated for some time producing a fairly satisfactory bleached pulp, which was shipped wet pressed and was comparable with bleached soda pulp.

Recently attempts have been made to establish a plant to use other canes—gynerium saccharoides and sagittatum as well as arundo donax—giant cane. Experimental cooks have given good results, these canes yielding by the soda process an easily bleached excellent pulp. However, economic conditions at present will retard further development.

Giant Cane—Arundinaria Macrosperma

This cane grows along the Southern Coast and gives good yields of a long fibered strong pulp by the soda and semi-chemical processes. Unfortunately we have no facts as to quantity available, costs, etc.

Saw Grass

This is an interesting raw material. The Grass Fibre Pulp & Paper Co., Leesburg, Florida, operated on this product for some time, but have been shut down since 1925.

This grass grows along the shores of the lakes and waterways and in the marshes of Central Florida and is cut by the usual harvester bar, and cutting knives carried on a barge; the cut grass was shredded and loaded into barges and towed to the mill.

The supply of grass seems unlimited and transportation by water cheap, and the method of cutting very suitable, but the equipment used was rather light and gave considerable trouble. The yield by the soda process was low, under 30 per cent, and it was difficult to remove certain resistant black specks. The fiber was unique by being very thin and long—yielding a paper of unusual properties.

Considerable experimental work would have to be done before saw grass fiber would be an economic success.

From time to time various plants have been suggested as potential fibrous raw materials, but have not passed the experimental stages owing to their collection, transportation, etc., being too costly, and the supply scattered over wide or inaccessible areas. For a list of these materials, see C. J. West's "Paper Making Materials," 1928.

Manila Rope and Jute

The source of supply of rope comes very largely from shipping, and consequently, the raw material is collected mostly at shipping points along the coast and along the Great Lakes. Some is imported from other countries, but the domestic rope is of better quality, being made of a finer and higher grade Manila fiber There is also a supply of old rope that comes from the oil fields and is known as oil well or drill rope. It is very good quality fiber, but often contains a very large quantity of dirt and sometimes of oil.

Old rope is quoted today at about 2c per pound, but the best qualities of No. 1 domestic rope would cost about 3½ to 4c delivered at the mill.

There is no great problem of transportation as most of the mills using this material buy through a common purchasing center, and prices on shipments are made from the nearest source of supply of the quality desired and prices are quoted as for delivery at the mill.

Domestic rope is purchased on the basis of 15 per cent moisture content, while foreign rope is purchased on the basis of 20 per cent moisture content. There is always more or less material which has to be cut out and rejected, and in the cooking process the various noncellulosic materials are removed so that the ultimate yield of cellulose on the basis of the rope purchased often does not exceed 50 per cent.

Jute is obtained very largely from gunny sacks, although some old jute strings and jute butts, as well as cuttings from the manufacture of jute bags, are used. Depending on quality this material costs from 1 to 2c per pound and is handled in the mill very much the same as is rope except that as strong cooks are not used as are often used in the cooking of rope. Most of the cooks of jute are with lime or with lime and soda ash. The yield of cellulose from the jute is usually somewhat higher than from rope, but often does not exceed 50 per cent. The old bagging and strings, etc., are collected by the same suppliers as those handling the rope, although the available supply comes more from the interior than from seaboard except where it is imported.

Both rope and jute are used in the manufacture of tough and strong papers where a high tear and a high folding endurance are

required. Among these are tag stock, sandpaper backing, electrical insulating papers, gasket papers, etc.

Old Books and Magazines

During the year 1931 book mills using No. 1 books and magazines have been able to buy their requirements at figures which have not prevailed since 1913. The market in January, 1931, was approximately $21.00 per ton delivered at the mill for No. 1 books and magazines which carries the usual trade custom of 2 per cent tare and 2 per cent outthrow. This price prevailed during the first quarter but after that time gradually slipped off until in August when the low point was reached, namely 17.00 per ton delivered at the mill. Since August of 1931 there has been some stimulation in the price and during the last quarter of 1931 the price on books and magazines advanced about $3.00 per ton, reaching the figure of $20.00 per ton delivered at the paper mill.

Since the first of January there has been substantial curtailment in consumption owing to the fact that mills have decided to reduce their inventory, and one or two of the larger units have discontinued the use of books temporarily, so that price has again sagged $1.00 per ton and stands today at $19.00 per ton delivered at the paper mill.

In the case of mixed papers, a great deal of paper was destroyed deliberately in order to bolster the market but up to this time without much success, and the cheaper grades are still available at prices which are prohibitive so far as the packers are concerned, and very strenuous effort is being made by the packers in larger cities to obtain remuneration for removing waste from office buildings and similar institutions rather than bidding for the business.

While the price on books and magazines was decidedly lower as compared with previous years, nevertheless it was one outstanding waste material which the dealer in waste and second hand material was able to realize on and as a result packers of books and magazines were most anxious to obtain as much business in this line as possible, in order to remain in existence. A good portion of the book and magazine stock during part of the year was absorbed in mixed papers, which were in turn bought spasmodically by board mills, as packers found in some cases, when spurts were taken in the board business, that it was more economical to let the magazines flow into the board mill rather than the book mill. This, however, was only a temporary condition, and the situation today is that it is more advantageous to the packer to convert his magazines into No. 1 books and magazines rather than permit them to go into the packing for board mills.

Coincident with the reduction in price came a serious change in quality and it is presumed that, owing to the lower prices being obtained for No. 1 books and magazines, packers did not take the precaution to remove as much of the objectionable outthrow as would have occurred otherwise, and the quality of No. 1 books and magazines today is not up to the standard that it was a year or two ago when this type of stock brought better prices.

Owing to the limited demand on the part of the book mills using paper stock, plus the surplus of labor and the open weather conditions which have prevailed, there has been no scarcity of books during the 1931-1932 winter period, such as prevailed heretofore, and the immediate outlook is that mills will be able to obtain their requirements at the present market price without difficulty. With good weather approaching, which always tends to increase the books available through spring house cleaning plus plenty of labor to get the stock, it would appear as though the present price schedules would continue to maintain and, unless demand should increase, it is not at all unlikely that the market may soften during the summer months of 1932.

It is significant to note that in the Middle West where the use of printed waste predominates, particularly in the Kalamazoo area, the consumption for a monthly period in 1931 as against the same month in 1932 shows a decrease in consumption of approximately 30 per cent. The figures for a group of Middle West book mills, were, consumption: Jan., 1931—10,500 tons and Jan., 1932—7,400 tons. While these figures are confined to the Middle West, it is safe to assume that the same conditions prevail in the eastern consuming centers.

Notes On Linter Production

Cotton linters are made by passing cotton seed as it comes from the gin through a machine called a linter, which removes an additional amount of shorter fiber. American seed have about 200 pounds of fiber per ton. Theoretically, this may all be removed but practically not more than 150 pounds is usually taken off.

There are three general classes of line—first cut, mill run and second cut. The first has the longest staple. In making it, from 10 pounds to 50 pounds of fiber is removed per ton of seed. The mill run is of intermediate fiber length and from 50 pounds to 120 pounds is removed per ton. Second cut has the shortest staple, this type being made by repassing the seed through the linters after taking off the first cut. The amount removed varies from 50 pounds to 120 pounds. If hull fiber is to be made, the seed from the linters are passed through hullers and separators, in which the hull carrying the fiber is separated from the meats. The hulls are then ground in any of several types of mill and separated as far as possible from the fiber.

The production of hull fiber is 20,000 tons per year. Present cost is from 0.5 cents-1.0 cents per pound.

In the following tables are given data on linter production and values for the years ending July 31, 1926-1931, inclusive. Most of the data are taken from the United States Department of Commerce Bulletin 167. Unless otherwise stated, all production figures are given in terms of running bales of an average gross weight of 580 pounds (tare 2½ per cent).

In Table I is given a summary of the data on lister production. Figures are given for individual states for 1931 in order to show the distribution.

TABLE I

Year	Cotton Seed Produced Tons	Linters Production Theoret. Max. (1)	Linters Production Actual	Value Av. Cents per Lb.	Exported
1931	6,191,000	1,600,000	823,944	1.88	111,969
Alabama	655,000		59,142		
Arizona	69,000		10,246		
Arkansas	388,000		55,256		
California	117,000		25,913		
Georgia	707,000		112,400		
Louisiana	317,000		37,450		
Mississippi	650,000		120,077		
North Carolina	343,000		50,671		
Oklahoma	380,000		44,703		
South Carolina	444,000		50,861		
Tennessee	167,000		50,060		
Texas	1,799,000		195,946		
All Others	155,000		11,219		
1930	6,590,000		1,038,170	3.34	117,955
1929	6,435,000	1,670,000	1,085,766	4.41	182,211
1928	5,758,000	1,490,000	875,121	4.90	193,232
1927	7,989,000	2,060,000	1,041,864	2.77	257,324
1926	7,150,000	1,850,000	1,044,495	3.83	104,079

(1) Based on 150 pounds of lint per ton of seed.

Data for 1926-28 inclusive show that of the total production, 17 per cent was first cut, 33 per cent mill run and 50 per cent second cut.

There is given in Table II an estimate of the amounts of the different types produced and of their value at the Oil Mill.

TABLE II

Year (1)	Production First Cut	Production Mill Run	Production Second Cut	Value (cents per lb.) First Cut	Value (cents per lb.) Mill Run (2)	Value (cents per lb.) Second Cut
1931	140,000	262,000	422,000	3.8	2.5	1.3
1930	177,000	346,000	515,000	5.7	4.1	2.4
1929	180,000	388,000	518,000	7.4	5.6	3.8
1928	136,000	361,000	378,000	8.6	6.3	3.9
1927	155,000	468,000	419,000	6.0	4.3	2.6

(1) Period ending July 31st.

(2) Estimated as midway between first and second cut.

In Table III below are given freight rates per 100 pounds from representative linter producing centers to each of three points for distributing to the paper mills.

TABLE III

	Appleton Wis.	Dayton Ohio	New York N. Y.
Dallas, Texas (1)	$0.75	$0.65	$0.82½
Greenville, Miss. (2)	0.66½	0.41	0.55
Atlanta, Ga. (2)	0.69½	0.37	0.43

(1) Classified—Cotton Seed Hull Shavings not Bleached or Dyed—Min. car 30,000 pounds.

(2) Classified—Cotton Linters—Min. car 40,000 pounds.

Analysis of Soda Ash (Anhydrous Sodium Carbonate)*

Tentative Official Standard Method of the Technical Association of the Pulp and Paper Industry

Although obtainable in a variety of grades, soda ash for the paper industry is in general that grade known as 58 per cent. The percentage refers to the conventional method of designating its strength by the content of sodium oxide (Na_2O). A soda ash of 58 per cent actual Na_2O content is equivalent to 99.2 per cent of Na_2CO_3.

Much confusion in the past has arisen over the use of the "Newcastle" and "New York and Liverpool" tests in stating the strength of soda ash. These tests give an erroneous impression of the strength of the material. It is recommended that purchase and test be made on the basis of the actual amount of Na_2CO_3 (or Na_2O) present.

Specifications[1]

(1) *Total Alkalinity:* The total alkalinity of the material after drying for 1 hour at 150-155 deg. C. shall be not less than 58 per cent, calculated as Na_2O which is equivalent to 99.2 per cent of Na_2CO_3.

(2) *Loss on Heating:* The loss in weight on heating the material as received at 150-155 deg. C. for 1 hour shall not exceed 1 per cent.

(3) *Other Impurities:* After drying the material for 1 hour at 150-155 deg. C. it shall not show impurities in excess of the following amounts:

	Per Cent
Matter Insoluble in Water	0.25
Sodium Bicarbonate, $NaHCO_3$	0.50
Sodium Hydroxide, NaOH	0.10

Sampling

When packed in cans or cartons, one package shall be taken at random from not less than 1 per cent of the shipping containers, provided such containers contain not less than 50 pounds each. In the case of smaller containers a can or carton shall be taken at random from each lot of containers totaling not over 5,000 pounds. The total sample shall in all cases consist of at least 3 cans or cartons taken at random from separate containers. (With very large lots the percentage of packages sampled may be reduced so that the amount shall not exceed 20 pounds.)

When in bulk, a grab sample of not less than ½ pound shall be taken at random from not less than 1 per cent of the shipping containers, provided such containers contain not less than 100 pounds each. In the case of smaller containers, a grab sample of not less than ½ pound shall be taken at random from each lot of containers totaling not over 10,000 pounds. The total sample shall consist of not less than 3 grab portions taken at random from separate containers. (With very large lots the percentage of packages may be reduced so that the amount drawn shall not exceed 20 pounds.)

The samples shall be mixed rapidly and placed in an air-tight container which shall be completely filled. The samples should be kept cool until tested.

Preliminary Procedure for Tests

Approximately 50 grams of the sample shall be dried in an oven at 150-155 deg. C. for 1 hour and cooled in a desiccator. Exactly 10 grams of this dried sample shall be transferred to a 1-liter volumetric flask, about 200 cc. of freshly boiled and cooled distilled water added, and when the sample has dissolved, the solution shall be diluted to the mark with freshly boiled and cooled distilled water and well mixed. The solution shall be tested for hydroxide as follows: To about 10 cc. in a beaker add 10 per cent $BaCl_2$ solution until a precipitate no longer forms, filter off the precipitate, and add a drop of 10 per cent $AgNO_3$ solution to the filtrate. A dark coloration indicates the presence of hydroxide. (If hydroxide is present, no bicarbonate can be present.)

Total Alkalinity

To 250 cc. of the above solution (corresponding to 2.5 grams of the sample) add 3 drops of methyl orange solution and titrate the solution quickly to the end-point with 0.5 N acid. Then to another 250 cc. aliquot of the solution in a 500 cc. beaker add quickly about 1 cc. less of the standard acid than was required in the previous titration, avoiding loss by effervescence. Cover the beaker with a watch glass and boil the solution to expel free CO_2. Then cool, wash off the cover glass, add 3 drops of methyl orange solution, and complete the titration, adding the standard acid dropwise and stirring thoroughly. The percentage of total alkalinity as Na_2O shall be calculated from this titration.

Calculation: 1 cc. 0.5 N acid = 0.0155 gram Na_2O.

Hydroxide

If the sample contains hydroxide, add to 250 cc. of the original solution 100 cc. of 10 per cent $BaCl_2$ solution and stir thoroughly. Filter off the precipitate and titrate the filtrate at once with 0.5 N acid, using phenolphthalein as indicator. The percentage of hydroxide as NaOH shall be calculated from this titration.

Calculation: 1 cc. 0.5 N acid = 0.0200 gram NaOH.

Bicarbonate

If the sample does not contain hydroxide, dissolve exactly 10 grams of the original sample (dried at 150-155 deg. C.) in about 50 cc. of freshly boiled and cooled distilled water and titrate with 0.5 N NaOH until a drop of the solution added to a drop of 10 per cent $AgNO_3$ solution on a spot plate produces instantly a dark coloration. The percentage of $NaHCO_3$ shall be calculated from this titration.

Calculation: 1 cc. 0.5 N NaOH = 0.042 gram $NaHCO_3$

Carbonate

The number of cc. of 0.5 N reagent required for the hydroxide or bicarbonate *in 1 gram* shall be subtracted from the number of cc. of 0.5 N acid required for the total alkalinity of 1 gram and the difference calculated to percentage of Na_2CO_3.

Calculation: 1 cc. 0.5 N acid = 0.0265 gram Na_2CO_3.

Matter Insoluble in Water

Transfer exactly 10 grams of the dried sample to a 600-cc. beaker, add about 400 cc. of freshly boiled distilled water and boil the solution for 10 minutes. Filter the residue on a weighed Gooch crucible, wash thoroughly with hot water, dry at 105-110 deg. C. for 3 hours, cool and weigh. From the weight of residue in the crucible calculate the percentage of matter insoluble in water.

Loss at 150 Deg. C

Place exactly 2 grams of the sample, without previous drying, in a tared, wide-mouthed, short weighing tube provided with a glass stopper and heat with the stopper removed for 1 hour at a temperature of 150-155 deg. C. Then insert the stopper and cool and weigh the bottle and contents. Calculate the loss in weight to percentage.

* This method has been approved by the Non-Fibrous Materials Testing Committee of the Technical Association of the Pulp and Paper Industry. Suggestions and criticism should be sent to R. C. Griffin, chairman, 30 Charles River Road, Cambridge, Mass.

[1] From Federal Specification O-S-571, dated April 29, 1930.

SECTION OF THE
COST ASSOCIATION OF THE PAPER INDUSTRY
Affiliated with
THE AMERICAN PAPER AND PULP ASSOCIATION
Edited by Thos. J. Burke C.A. Sec.-Treas.

The New Concept of Price Control Assures Taxable Profits*

By Nelson B. Gaskill[1]

The recovery of a normal volume of business at present price levels throughout industry as a whole, would not restore prosperity. On the contrary, it would simply increase the loss factor in the general credit equation. If this statement is even approximately true, the situation demands our most serious consideration. I believe that the statement is more nearly true than is commonly recognized.

I am not suggesting a series of illegal price agreements either to peg the present price levels or to raise them. I want to get your minds centered on the importance of profit not as a measure of individual greed but as a supreme social necessity. Somehow, in some way, you, the business world, and the Congress of the United States, must be convinced that without the assurance of general profit in the field of productive enterprise, the whole complex social and political structure will collapse.

If we regard a price agreement as one method of assuring the general profit margin, we find that this avenue of relief in the present emergency, is closed by the anti-trust laws:

There is an alternative relief, however, contained in the economic formula of supply and demand. By this process, the surplus production which causes the low prices, is wiped out. A seller's market and higher prices return and the sun of prosperity shines upon the survivers.

But instead of allowing this to happen, instead of encouraging this process of economic recovery, we are using every possible means to prevent it. The Government, through the anti-trust laws, is insisting that the economic formula of unlimited price variation with all its destructive consequences, shall work. At the same time, the Government through the Reconstruction Finance Corporation, is exerting all its power to avert the consequences of unlimited price competition, to prevent the economic formula of recovery from working as it is designed to operate.

Emergency Measures Will Become Permanent

And if my premise is reasonably true, in due course it will appear that what we shall have assumed as emergency measures, will be permanent institutions. The conditions we have sought to alleviate, as temporary, will to our sorrow, prove to have escaped solution.

The matter of taxation presents another phase of a confusion of thought with reference to profits. Taxation is essentially a social recapture of profits currently received or received in some earlier period. Public taxation presupposes the reality of private profits.

These profits must come from some form of productive enterprise. And if you will think about it for a moment, you will see that all non-productive activities must be paid for out of the profits of productive enterprise.

One might reasonably assume that the legislatures which are responsible for the creation of all non-productive operations of the service type, which do not originate in voluntary contributions, which impose taxation for their maintenance, would be quite as much concerned with the assurance of profit as with the taxation of it. But the fact is, that here also, the left and the right hands of Government do not realize what the other is doing. The social service phase of Government is constantly increasing. The burden of taxation constantly mounts and at the same time the taxing agency insists upon a cut-throat competition in price which, in ever increasing measure, makes profit precarious or destroys it.

We have only to consider the vast and intricate social service functions of today in our municipal, State and Federal Government, to realize how utterly our concept of the Governmental functions has changed. The highly individualistic idea has vanished. In its place has come the social service idea with the actual industrial service constantly sought to be attached.

Not Greed But a Necessity

Profit has ceased to stand as an example of the individualistic greed which it largely was before Government undertook to recapture and redistribute profits through a social service program. Profit in private enterprise now becomes a necessity to the maintenance of a social service type of Government.

These two currents of thought, the socialization of Government and the refusal to permit or to compel the socialization of industry for profit, are absolutely irreconcilable. One or the other must give way. The obligations already assumed in the social service field cannot be lightly dismissed nor conveniently ignored. We have put our hand

* Printers Ink.
[1] President, The Lead Pencil Inst., Inc.

to this plow and we must follow the furrow. We cannot turn back. The course of clear vision is the reconsideration of the social service program and the elimination of those activities which are most remote from the productive status, most indirect and distant in their relation to profit. And this we must do at least temporarily while at the same time we take the steps necessary to meet the demand for a wider or a more general profit margin.

We stand confronted by the anti-trust laws as a barrier to the attainment of a greater social security in the field of profits. But if we arrive at this point with the conviction that because of the socialization of Government, profit in private enterprise has become a social necessity, our whole outlook has changed. *Private profit becomes the foundation of the program for the public welfare. The two are inseparable when joined by the connecting link of taxation.*

Under a socialized Government, a general, private profit becomes the prime necessity of the social order. The extent and the security of the social program will depend upon the generality and continuity of the profit margin. And as we assimilate that conclusion, we are faced by another logical sequence. *The failure to take profit, particularly the deliberate selling at a loss, is anti-social and tends to disrupt the whole social program.*

It seems to me that the only method by which there can be provided a check upon profit destroying prices and at the same time, avoid the necessity for a Governmental price control, is to utilize the force of individual competition but to subject that competition to control. *And that control lies in requiring the individual, whether producer or distributor, to observe his cost as his minimum selling price.*

Control on Price Will Control Production

By this process, competitive prices, always reflecting the return of cost, except for some necessary exceptions possibly, will control the market level and the intervention of a Governmental control becomes unnecessary. This control on price will also control production. For overproduction will fall as a loss upon its producer rather than upon a whole industry and ultimately upon the whole social order. The individual producer will be obliged to control his production or be liquidated.

Such a system would substitute for the present unlimited freedom of competition, a new character of competition, regulated to conserve the public interest in profit. The reward would be to the efficient rather than depend upon the financial strength to impose or sustain losses. It would tend directly to the elimination of waste, because the reduction of cost would contain the key to competitive price making. The competitive strain would be taken off the balance sheet and thrown on the cost sheet.

Naturally, under such a system, the last iota of needed supply would be furnished at prices which as a minimum, return cost. The business would go to the low cost producer or distributor up to his capacity. Beyond that point the next higher cost producer would enter the market.

And finally, only when industry is stabilized by permitting it to serve the whole of the existing demand at prices which constantly and continuously return cost at least, is there any possibility of stabilizing employment and guaranteeing reasonable wages.

There is coming to be more and more discussion about unemployment insurance. Desirable as this may be, the fact remains that it adds another cost charge upon invested capital for the return of which through net sales, there is no guarantee.

The course of wisdom seems to be a substitute of "employment assurance" for "unemployment insurance" as a topic for discussion and action. And as this course of inquiry is pursued it must lead to a perception of the fact that employment assurance is commensurate with the assurance to invested capital of its return of cost including wages.

In its extreme form, the proposal which I am submitting, suddenly and coercively applied, would be economic revolution. A process of economic evolution seems preferable. Its method lies in legislation which will firmly establish the Trade Practice Conference idea now functioning solely by grace of the Federal Trade Commission. Such legislation should take out of the hands of the Commission the power to originate regulations of industry and confer upon industry both the responsibility and the power of self-government for the purpose of regulating competition for profit.

These powers which may be specifically stated, should include the power to establish a uniform system of cost accounting and by action of a majority in any trade or industry, to establish the rule of individual cost as the minimum of individual selling price. And this rule as well as the other rules which an industry might be empowered to adopt, should be enforced by the Federal Trade Commission.

A hundred and fifty odd years ago, the thirteen American Colonies developed a new theory of political Government and contributed a new fact to the history of the world. It may be the happy destiny of the successor of those colonies, the United States of America, to develop a new idea also in the field of political economy, an alternative to the desperate, Old World remedy of Communism. We may fulfill that destiny if we set our minds to it.

To Represent Foster Wheeler Corp.

Foster Wheeler Corporation has appointed Consolidated Steel Corporation, Ltd., exclusive sales and manufacturing representatives for Foster Wheeler products on the Pacific Coast, including the states of California, Washington, Oregon, Nevada, Utah, Arizona and New Mexico. Consolidated Steel will handle the entire line of Foster Wheeler equipment including power plant, marine, oil refinery and gasoline plant apparatus.

Foster Wheeler sales were previously handled by district offices in San Francisco and Los Angeles under the direction of Mr. C. L. Froding of San Francisco. Mr. Froding was assisted by Mr. R. D. Spear in San Francisco and Mr. M. J. Gavin in Los Angeles. Messrs. Froding and Spear are now located in the San Francisco office of Consolidated Steel and Mr. Gavin is in the main office of Consolidated Steel in Los Angeles.

Foster Wheeler will continue to maintain a complete engineering organization in Los Angeles under the direction of Mr. W. L. Rifenberick, Chief Engineer of the Gasoline Department in Calif. This Engineering Department will remain in its former offices in the Petroleum Securities Building.

In addition to handling the sales of Foster Wheeler equipment, Consolidated Steel will manufacture the major portion of such equipment installed in the Pacific Coast territory. Consolidated Steel Corporation, Ltd., has one of the most modern machine shops in the country. These new shops, located on Slauson and Eastern Avenues in Los Angeles, replace the several smaller shops of the predecessor companies.

The correlation between the engineering experience of Foster Wheeler Corporation and the modern manufacturing facilities of Consolidated Steel Corporation, Ltd., will improve deliveries of both new equipment and replacement parts by bringing the point of manufacture closer to the user.

Apparatus for Measuring Smoothness of Paper Surfaces

By Dr. Julius Bekk[1]

Printing is the process of transferring inked forms to the surface of paper. The closer the contact of the inked form with the paper surface, the more perfect the transfer. The press plates are even and rigid, and for that reason their contact with the paper is closer in proportion with the smoothness of the surface. Therefore, smoothness is one of the most important properties for printing. A number of operations is dependent upon the smoothness of the paper as for instances selection of the rolls for autotypical reproduction, kind of retouching work, preparing the form, printing pressure, inking, etc. The surface smoothness has also a great influence on the life of composition sticks. Considering the importance of the state of smoothness of grades of paper used for printing the lack of any simple and reliable means of measuring smoothness has been strongly felt. The various known devices for measuring the gloss cannot be considered as a substitute for smoothness measuring. The optical concept of gloss is quite different from the aspect of smoothness. The same fallacy occurs when one tries to determine the smoothness by measuring the rubbing resistance of paper surface because the rubbing resistance is not only dependent on the surface smoothness but also on surface texture.

Examination of paper by means of a microscope will give results as far as the surface texture is concerned but will not give numerical indices as to the smoothness.

The method described below is the first very sensitive test devised which permits the quick numerical measurement of paper smoothness for use in printing shops and paper mills. The principle of the test is based on the discovered facts that a rigid flat surface comes closer in contact with a paper surface, the smoother that surface. The closeness of contact between the two surfaces can, therefore, be measured by determining the degree of tightness.

For instance, let us lay a sheet (see 5, Fig. 2) of which one side has been made air proof and the side resting on a perforated polished metal pressure plate (4) and above a soft rubber plate (21) and on top a lid (6) on which we exert a pressure, and now let us connect the hole of the pressure plate with the air chamber. As a result, the vacuum falls as indicated by the mercury column. The time in which this fall takes place depends upon how intimately the paper is in contact with the smooth surface plate or in other words the smoothness of the paper. The tightness is more complete, as the paper surface is smoother. The determined smoothness as stated before, measured by pressing the paper on a flat polished surface, corresponds to the condition in which that paper will be when in the process of being printed.

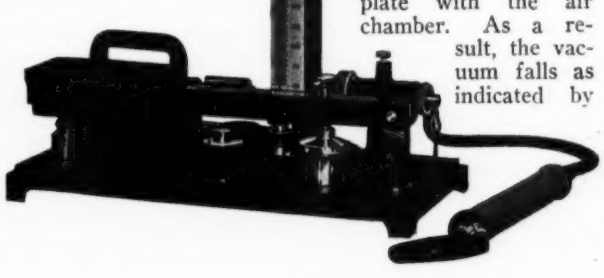


FIG. 1

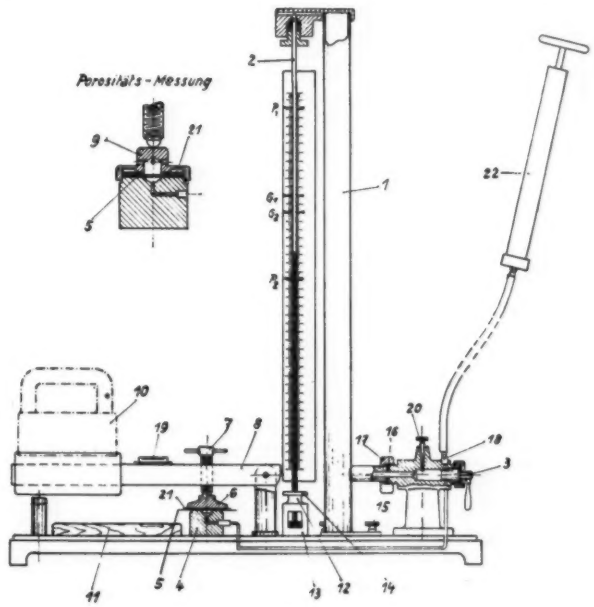


FIG. 2

Fig. 2 shows a schematic sketch of a smoothness measuring instrument developed by the house of R. Fuess, Berlin-Steglitz, Germany[2], in accordance with the indications of the writer. (Fig. 1 is a photograph of the same instrument. This instrument is also adapted for measuring the porosity of paper. With the help of these illustrations we are able to describe below a complete process of smoothness measurement.

Cut out from the paper to be tested several strips of about 5 x 5 cm. in places where there are no imperfections, such as knots, etc. The test sheets are to be marked on the side to be tested and the other side made impervious to air by means of soft gum rubber. Then, the surface to be tested is laid on the polished metal plate (4, Fig. 2) of the apparatus, which in turn is weighted down by the pressure lid (6). The upper surface of the metal plate is exactly 10 sq. cm. The area of the hole 1 sq. cm. When all is set, the vacuum chamber is evacuated by means of a hand pump until the mercury column slightly

[1] Technical Director, Ullstein Printery, Berlin, Germany.
[2] New York Office, 245 West 55th street.

TABLE 1—SMOOTHNESS TESTS IN SECONDS

Paper	Felt Side Individual measurings on 5 different places					Average	Wire Side Individual measurings on 5 different places					Average
1. Art print, free from cellulose	1219	1407	1223	1235	1152	1247	1185	1510	1242	1297	1220	1291
2. Art print, cellulose	933	952	886	1081	923	955	700	680	807	753	766	741
3. Raw art print, free from cellulose	1175	1246	1205	1066	1104	1159	733	731	694	846	805	762
4. Raw art print, cellulose	707	644	730	649	681	682	502	424	442	505	449	464
5. Illustration paper, cellulose	1079	845	876	1013	827	928	648	473	585	533	570	562
6. Illustration paper, cellulose	625	613	620	618	622	620	623	584	601	614	594	603
7. Illustration paper, cellulose	540	509	644	540	533	557	470	473	481	487	404	463
8. News print for printing of pictures	242	216	320	330	260	274	345	314	291	300	346	319
9. News print for printing of pictures	117	251	108	245	254	195	219	241	244	218	245	233
10. News print, ordinary	56	42	55	46	46	49	47	40	37	37	41	40
11. Ordinary printing paper	16	14.5	14	14.5	15.5	15	10	9.5	10	9	10.5	10
12. Ordinary printing paper	7.4	6.1	6.4	6.5	6.9	6.7	5.8	5.6	5.5	6	6.1	5.8
13. Ordinary printing paper	2.2	2.2	2.2	2.2	2	2.2	2.7	2.9	3.2	3.3	3.1	3

exceeds the mark G1. Now the connection between the vacuum chamber and the hole of the pressure plate is interrupted by using the stopcock (3). Then by giving the stopcock a quarter turn the mercury column is brought up to exactly G1 by careful manipulation of the regulating vent (20). Following this, the lever (8) of the apparatus is brought down and then placed in a horizontal position by using the spindle (7). This lever produces by itself, on the plate's surface, a pressure of 10 kg., that is with 1 kg. to the sq. cm. After the pressure has lasted exactly 1 minute, the stopcock is turned again a quarter turn so as to restore the connection between the air chamber and the plate hole. When this is accomplished, the time is to be noted which the column of mercury takes to recede to G2. This drop of pressure corresponds to an ingress of outside air into the air chamber of 10 cu. cm. and by an average underpressure of ½ atmosphere. Therefore, the smoothness number obtained indicates in seconds the time for 10 cu. cm. of air to penetrate between a polished pressure plate having a round surface of 10 sq. cm. and 1 kg. to the sq. cm. of pressed paper surface by a suction of ½ atmosphere.

Of course, in cases where the paper is very uneven, it is advisable to undertake several tests in order to obtain reliable averages. The following table contains the smoothness numbers of various kinds of paper.

Table 1

The differences between art paper and commercial printing paper shows the sensitiveness of the described measuring device. The comparison of both sides of a paper leads us, sometimes, to wonder at the "twosideness" of a certain grade, this effect being very striking in the case of paper No. 5. Furthermore, when we measure the same paper at different points, we readily detect how even a paper surface may or may not be. For instance, paper No. 6 is very even on top while paper No. 9 is very uneven on top.

The described smoothness measuring process proved to be very efficient in the printing paper testing routine of the Ullstein Printery in Berlin.

As already stated the smoothness measuring equipment is also adapted for measuring the porosity of paper. For the latter purpose, the apparatus is used as follows:

Cut out from the paper to be tested strips of about 2.5 x 2.5 cm. The strip is placed (without rubber) on the polished plate surface (4). On top, put the pressure block for porosity tests (see Fig. 2) then lower the lever (8) and then the supplementary weight (10), following which the lever is placed horizontally.

When all is set, the air chamber is emptied until the mercury column exceeds somewhat the mark P1; the stopcock is turned a half turn so as to connect the air chamber with the plate hole until the mercury column falls from P1 to P2. This fall of the mercury corresponds to the passing of 100 cu. cm. of air through 1 sq. cm. of paper by an average suction of ½ atmosphere. To be accurate, it is advisable to ascertain the time the mercury takes to fall from one mark to another when there is no paper on the plate and then deduct the time result from the porosity value of very porous paper.

TABLE 2—POROSITY TESTS IN SECONDS

Paper	Individual measurings			Average
1.	514	481	434	476
2.	264	254	272	263
3.	237	275	258	257
4.	105	98	105	103
5.	51	51	49	50
6.	23	22	23	23
7.	51	46	47	48
8.	20	20	19	20
9.	20	24	18	21
10.	16	13	14	14
11.	10	12	12	11
12.	4	4	4	4
13.	.4	.5	.4	.4

Table 2

Table 2 contains the porosity numbers of the papers already tested for smoothness as per table 1.

Table 3

Table 3 shows additional smoothness tests on another batch of various papers.

Bagley & Sewall Get Decision

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., June 27, 1932—A breach of contract action brought against the Bagley & Sewall & Co. by Otto C. Bachman, former consulting and sales engineer, has been settled in favor of the local concern. The plaintiff alleged that the company owed him $1,700 in salary under a contract made in 1931. Officials of the company were the principal witnesses during the trial.

The decision of the court was to the effect that on the plaintiff's own testimony he had failed to bring out that he held a contract for a year and therefore there was not a question of fact to place before the jury. It was decided also that there was no issue to be upheld and motion for dismissing the complaint was granted.

TABLE 3.—SMOOTHNESS TESTS ON 9 DIFFERENT TYPES OF PAPER

No.	Kind of Paper	Weight grms. per sq. m.	Thickness in mm.	Pressure: 1kg. per Felt Side sq. cm ind. Measurements					Mean Average	Wire Side ind. Measurements					Mean Average
1.	Art Print, free from cellulose	120	0.101	792	883	987	1126	1210	1000	768	843	871	926	1124	986
2.	Art Print, cellulose	115	0.100	546	695	698	702	712	671	464	482	483	491	534	491
3.	Raw Art Print, free from cellulose	119	0.102	410	431	444	450	513	450	519	528	530	537	592	451
4.	Raw Art Print, cellulose	86	0.079	839	870	893	930	1002	907	651	713	772	794	897	765
5.	Rotary Cut-Work Print, cellulose	70	0.061	860	920	1032	1058	1110	996	553	553	565	577	601	643
6.	Book-Print, free from cellulose	88	0.172	2.0	2.4	2.4	2.5	2.8	2.4	2.6	2.6	2.7	2.9	2.9	2.7
7.	Book-Print, cellulose	72	0.132	8.1	8.2	8.3	9.0	9.4	8.6	7.1	7.2	7.9	8.2	9.0	7.9
8.	News Print, Glazed	61	0.070	303	327	331	337	363	332	229	253	265	280	295	264
9.	News Print, Machine Smooth	52	0.080	34	41	44	52	57	46	20	21	24	25	30	24

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JUNE 25, 1932

CIGARETTE PAPER

American Tobacco Co., Ile de France, Havre, 100 cs.; Standard Products Corp., Ile de France, Havre, 50 cs.

WALL PAPER

F. J. Emmerich, Scythia, Liverpool, 2 bls.; A. L. Diament & Co., Majestic, Southampton, 1 cs.; Irving Trust Co., St. Louis, Hamburg, 44 cs.; Irving Trust Co., Deutschland, Hamburg, 30 cs.

PAPER HANGINGS

Whiting & Patterson Co. Inc., Majestic, Southampton, 1 bl.

NEWS PRINT

W. H. Bell, Markland, Liverpool, N. S., 4545 rolls; Jay Madden Corp., Stuttgart, Bremen, 446 rolls; Perkins Goodwin & Co., Stuttgart, Bremen, 63 rolls; ——, Stavangerfjord, Oslo, 603 rolls; International F'd'g Co., P. T. Dodge, Dalhousie, 4937 rolls; H. Reeve Angel & Co. Inc., Deutschland, Hamburg, 29 rolls; Perkins Goodwin & Co., Amer. Importer, Hamburg, 90 rolls.

PAINTED PAPER

Hudson F'd'g & Shipping Co., Ile de France, Havre, 2 cs.

PRINTING PAPER

C. Steiner, Stuttgart, Bremen, 22 cs.; E. Dietzgen & Co., Volendam, Rotterdam, 32 cs.; Keuffel & Esser Co., Belgium Maru, Hamburg, 11 rolls.

WRAPPING PAPER

F. C. Strype, Minnewaska, Antwerp, 6 cs.; F. H. Lee, Conte Grande, Genoa, 4 cs.

KRAFT PAPER

Walker Goulard Plehn Co., Deutschland, Hamburg, 424 rolls.

DRAWING PAPER

H. Reeve Angel & Co. Inc., Franconia, London, 2 cs.; Keuffel & Esser Co., Belgium Maru, Hamburg, 12 cs., 22 rolls.

PARCHMENT PAPER

Globe Shipping Co., Deutschland, Hamburg, 1 cs.

FILTER PAPER

H. Reeve Angel & Co. Inc., Franconia, London, 3 cs.; S. Fougera & Co., Majestic, Southampton, 46 cs.; A. Giese & Son, Aquitania, Southampton, 37 bls.

BASIC PAPER

Globe Shipping Co., Stuttgart, Bremen, 25 cs.

METAL COATED PAPER

Globe Shipping Co., Stuttgart, Bremen, 14 cs.; Globe Shipping Co., Bremen, Bremen, 28 cs.

SURFACE COATED PAPER

Phoenix Shipping Co., Deutschland, Hamburg,, 6 bls.

COATED PAPER

Happel & MacAvoy, St. Louis, Hamburg, 1 cs.; Happel & MacAvoy, Deutschland, Hamburg, 5 cs.; ——, Deutschland, Hamburg, 6 cs.

PHOTO PAPER

Phoenix Shipping Co., Bremen, Bremen, 2 cs.

TRANSFER PAPER

Fuchs & Lang Manfg Co., Stuttgart, Bremen, 1 cs.; Manhattan Decolcomania Co., Columbus, Bremen, 2 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Scythia, Liverpool, 10 cs. (simplex); C. W. Sellers, Deutschland, Hamburg, 3 cs.

COLORED PAPER

F. Murray Hill Co., Amer. Importer, Hamburg, 6 cs.

TISSUE PAPER

F. C. Strype, Franconia, London, 1 cs.; M. Snedeker Corp., Franconia, London, 1 cs.; Meadows Wye & Co., Scythia, Liverpool, 1 cs.; W. J. Byrnes, Majestic, Southampton, 4 cs.

GUMMED PAPER

Heemsoth Basse & Co., Columbus, Bremen, 3 cs.

STENCIL PAPER

Bush Service Corp., Aquitania, Southampton, 1 cs.; ——, St. Louis, Hamburg, 6 cs.; ——, Deutschland, Hamburg, 3 cs.

PASTE BOARD

——, Stuttgart, Bremen, 66 cs.; Chase National Bank, Ame. Importer, Hamburg, 48 bls.

CARD BOARDS

L. T. Piver, Ile de France, Havre, 8 cs.

RAW CARD

F. C. Strype, Stuttgart, Bremen, 2 cs.

MISCELLANEOUS PAPER

R. Wilson Paper Corp., Cameronia, Glasgow, 8 cs.; Japan Paper Co., Pr. McKinley, Kobe, 16 cs.; G. W. Sheldon & Co., Ile de France, Havre, 1 cs.; Keller Dorian Paper Co., Ile de France, Havre, 6 cs.; W. Bersch, Deutschland, Hamburg, 1 cs.

RAGS, BAGGINGS, ETC.

——, Capulin, Dundee, 23 bls. paper stock; ——, Cabo Tortosa, Barcelona, 84 bls. bagging; ——, Scythia, Liverpool, 22 bls. rags; J. Cohen Son Co., Scythia, Liverpool, 56 bls. paper stock; ——, Oriente, Havana, 313 bls. rags; Castle & Overton, Inc., Western World, B. Ayres, 209 bls. hessian scrap; J. Demato, Schodack, Havre, 146 bls. rags.

HIDE GLUE

B. Bierschenk & Co., Volendam, Rotterdam, 200 bags; ——, Stuttgart, Bremen, 200 bags; ——, Deutschland, Hamburg, 340 bags.

OLD ROPE

Bank of N. Y. & Trust Co., Capulin, Hull, 81 coils; Brown Bros. Harriman & Co., Cabo Tortosa, Barcelona, 153 rolls; National City Bank, Amer. Farmer, London, 78 coils.

CHINA CLAY

L. A. Salomon & Bro.., Scythia, Liverpool, 140 bags; Whitaker Clark & Daniels, Scythia, Liverpool, 280 bags.

CASEIN

Kalbfleisch Corp., Western World, B. Ayres, 54 bags; ——, St. Louis, Hamburg, 60 bags.

WOOD PULP

Johaneson Wales & Sparre, Inc., Stuttgart, Bremen, 525 bls. wood pulp; Castle & Overton, Inc., Volendam, Rotterdam, 175 bls. wood pulp; Irving Trust Co., Stavangerfjord, Drammen, 800 bls. sulphite; Chemical Bank & Trust Co., Stavangerfjord, Oslo, 300 bls. sulphite; Perkins Goodwin & Co., Stavangerfjord, Drammen, 125 bls. sulphite; Castle & Overton, Inc., St. Louis, Hamburg, 140 bls. wood pulp, 28 tons; Brown Bros. Harriman & Co., Belgium Maru, Hamburg, 169 bls. sulphite, 25 tons; E. J. Keller Co. Inc., Belgium Maru, ——, 340 bls. wood pulp, 51 tons; E. J. Keller Co. Inc., Amer. Importer, ——, 379 bls. wood pulp, 58 tons; Lagerloef Trading Co., Hallaren, Tolkis, 270 bls. sulphite; Castle & Overton Inc., Deutschland, Hamburg, 140 bls. wood pulp, 28 tons; Bulkley Dunton & Co., Gonzenheim, ——, 1000 bls. wood pulp; Bulkley Dunton & Co., Pr. Roosevelt, ——, 500 bls. wood pulp.

WOOD FLOUR

State Chemical Co., Volendam, Rotterdam, 400 bags; Corn Exchange Bank, Stavangerfjord, Flekkefjord, 340 bags.

PHILADELPHIA IMPORTS

WEEK ENDING JUNE 25, 1932

Van Oppen & Co., Capulin, Hamburg, 59 bls. bagging; E. J. Keller Co. Inc., Capulin, ——, 55 bls. rags; ——, Exeter City, Bristol, 101 coils old rope; Chase National Bank, Tsuyama Maru, Kobe, 50 bls. rags; Mitsui & Co. Ltd., Tsuyama Maru, Yokohama, 20 bls. rags; Bulkley Dunton & Co., Riol, ——, 250 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING JUNE 25, 1932

Bank of Montreal, P. T. Dodge, Dalhousie, 2157 rolls news print.

BOSTON IMPORTS

WEEK ENDING JUNE 25, 1932

Castle & Overton, Inc., Capulin, Hamburg, 368 bls. wood pulp, 55 tons; M. C. Rosenfeld Co., Capulin, Hamburg, 5 cs. filter paper; E. Butterworth & Co. Inc., Amer. Farmer, London, 100 bags waste paper; 1st National Bank of Boston, Amer. Farmer, London, 133 bls. waste paper; T. D. Downing & Co., Amer. Farmer, London, 50 bls. rags; Crocker Burbank Co., Amer. Farmer, London, 238 bls. waste paper; J. B. Woodruff, Amer. Farmer, London, 55 bls. waste paper; Atkinson Haserick & Co., Pr. Pierce, Genoa, 2 cs. wrapping paper; E. J. Keller Co. Inc., Artigas, ——, 68 bls. bagging; Bulkley Dunton & Co., Gonzenheim, ——, 1000 bls. wood pulp; Bulkley Dunton & Co., Iserholm, ——, 125 bls. wood pulp.

Gibbs-Brower Adds New Line

The Gibbs-Brower Company, Inc., 401 Broadway, New York, have just added to the various lines of pulp and paper mill machinery for which they are distributors "The Foxboro Motion Recorder," which was designed and built for use on beater rolls. It records that time of the beat, the positions of the beater roll, how long each position is held and the elapsed time between beats.

All the parts of this new Recorder subject to wear or strain are made of stainless steel, thus giving strength and resistance to corrosion. It can be adjusted to give full scale reading and a positive zero reading regardless of the movement of the lighter bar.

A positive zero makes it easy to follow records and to judge the actual position of the beater roll. The conditions of a beater room, vibration, shock, corrosion, and the necessity for accuracy, were all considered and thoroughly tested in the development of this new recording device.

W. H. Lee Runs for State Senate

William H. Lee, treasurer and general manager of the Lockport Felt Company, of Newfane, N. Y., has just announced himself as a candidate for Republican nomination for State Senator for the 47th Senatorial District of New York. On many occasions, Mr. Lee has been strongly urged by his friends and business acquaintances to run for political office and this is the first time that he has assented to their wishes. Mr. Lee is well known throughout the industry and besides being a successful business man, farmer, and sportsman, he is a most enthusiastic aviator, having his own planes, which he uses when making his calls on mills.

New Dry Rosin Size Plant for South

The Kalbfleisch Corporation, one of the leading manufacturers of chemicals and specialties for the pulp and paper trades, is constructing another unit to its chain of factories and warehouses, with the erection of a new plant at Valdosta, Georgia, devoted exclusively to the production of Rosin Size. The addition of this Size Plant was made necessary by the rapidly increasing demand for their Dry Gum Size.

From the point of sound business economy, the decision in selecting Valdosta, Georgia, for a factory site is ideal as it is situated in the heart of a large Gum Rosin producing territory, with adequate railroad and shipping facilities.

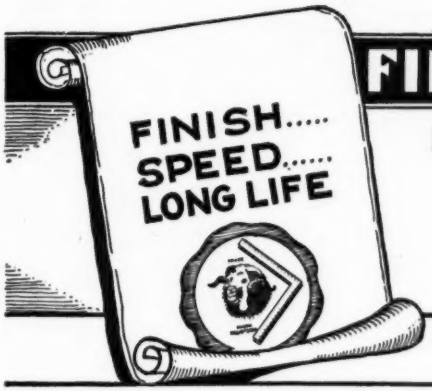
New Lobdell Folder Out

The Lobdell Car Wheel Company, of Wilmington, Del., has just published an attractive folder entitled "Paper Mill Machinery of Merit." The folder is illustrated and contains valuable information regarding Lobdell Roll Grinders, Lobdell Calender Stacks, Lobdell Improved Micrometer Roll Calipers, and Lobdell Puraloy Chilled Iron Calenday Rolls. Copies may be obtained upon request to the Lobdell Car Wheel Co.

Crocker Burbank Plant Operations

[FROM OUR REGULAR CORRESPONDENT]

FITCHBURG, Mass., June 27, 1932—Alterations are being made to the pipe and tin workers' shop of the Crocker, Burbank & Company Association.



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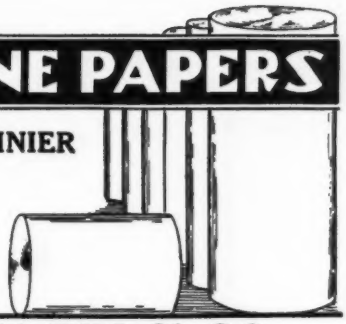

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Send us your felt problems.

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Announcing: A New 3-color Printing Press for CELLOPHANE and Other Stocks

A remarkable new machine designed to meet present-day requirements. Built by Windmoller and Holscher.

The press is fed from a roll. When printing CELLOPHANE, an auxiliary roll of suitable stock is used to provide slip-sheeting. The machine first cuts the web into sheets of the size required—up to 39⅜ maximum web width and from 11⅛ to 29½ length. The sheets are then printed in 3 colors, in exact register, from ordinary curved electro or stereo plates on grooved plate cylinders. The printed sheets are stacked (collected 5 at a time) by a fly delivery.

The sheet-cutting mechanism is most conveniently placed, well out of the way of the printing units.
SPEED from 120 to 150 sheets a minute.
DISTRIBUTION for each of 3 colors: 3 distributing rollers, 2 vibrators, and 3 form rollers—insuring a splendid quality of printing.
This press can also be used as a fixed-size web machine.
Investigate! Here is a money-maker—and the price is attractive.

H. H. HEINRICH, INC., 200 Varick St., New York
Chicago Office: ARTHUR PRAUSNITZ, 122 S. Michigan Ave.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, June 29, 1932.

Trading in the local paper market continues listless. Demand for the various standard grades of paper is light. Summer specialties, however, are in better request, with the arrival of warmer weather. Sales forces of the leading paper houses are still working hard to book orders before the mid-summer lull sets in.

The position of the news print paper market is practically unchanged. Production in the United States and Canada is being maintained in sufficient volume to take care of current requirements. Stocks at the mills are ample. Merger negotiations are still taking place in Canada, although progress is slow. The price situation is unsatisfactory.

Demand for the various grades of paper board is only moderately active. Box board output is practically keyed to consumption. The fine paper market is fairly steady. Tissues are moving in normal volume for the time of year. The coarse paper market is exhibiting some signs of improvement and kraft wrapping paper continues firm.

Mechanical Pulp

The ground wood market is slightly easier. Prices have declined slightly. No. 1 imported moist mechanical pulp is now quoted at from $19 to $21 per ton and No. 1 dry imported mechanical pulp at from $21 to $22, on dock, Atlantic ports. No. 1 domestic mechanical pulp is still offered at from $18 to $24 per ton, f.o.b. mill.

Chemical Pulp

Steadiness continues to prevail in the chemical pulp market. The sound statistical position of the industry is mainly due to the curtailment of production at home and abroad and the pulp mill workers strike in Sweden. Prices are generally holding to previously quoted levels, although bleached soda pulp is softer and is now offered at $2.25 delivered.

Old Rope and Bagging

Some slight improvement was noticed in the old rope market during the past week. Demand for both domestic and imported old manila rope is fairly persistent. Small mixed rope is comparatively quiet. Prices are unchanged, in most instances. The bagging market is irregular. While gunny bagging is moderately active, scrap bagging is dull.

Rags

Paper mill interest in the domestic rag market is not much in evidence at present. Demand for the various grades of cotton cuttings is slow. Roofing grades, however, are going forward in somewhat better volume than of late. Prices are strictly nominal. The imported rag market is still affected by the fluctuation of foreign currencies.

Waste Paper

The paper stock market is marking time. The local industry is watching with much interest the action of the Federal Trade Commission against a group of paper board mills which are charged with restraint of trade through group buying of waste paper. A hearing will be held in Washington, D. C., on Friday, July 1.

Twine

Conditions in the local twine market are fairly satisfactory. While most of the business transacted during the past week was along routine lines, inquiries are fairly numerous and the outlook for the future is promising. Despite keen competition, quotations are unaltered, in most instances, and shading is infrequent.

Boston Paper Market Conditions

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 27, 1932—Seasonal demand for paper and paper products predominates, with a moderate volume of merchandise moving. In fine papers, many inquiries have been received for bonds and ledgers, some of which are developing into actual orders. Kraft is selling fairly well. Summer specialties, such as drinking cups, paper napkins and paper fibre forks, spoons, etc., are in the usual demand. Box board dealers report a greater demand for their lines, with an improvement in the paper box industry.

Paper stock continues quiet, with the price trend still downward. In old papers, No. 1 mixed are quotable at .12½ @ .15c, compared with a former range of .13½ @ .17½. In bagging, jute rope is now at .75, compared with .85; scrap burlap at .50 @ .55, compared with .60; scrap sisal at .75 @ .85, compared with .75 @ 1.00; new burlap cutting at .75 @ .90, compared with 1.00; Australian wool pouches at 1.25 @ 1.50, compared with 1.50, and bagging No. 2 at .20 @ .25, compared with .30 @ .35. In old domestic rags, twos and blues are now at .90 @ 1.00, compared with 1.00 @ 1.12½ and thirds and blues, repacked, at .75 @ .85, compared with a flat .85. In foreign rags, Dutch blues are at 1.25 @ 1.50, compared with 1.60 @ 1.80; and old fustians at .85, compared with 1.00.

Compensation Case Goes to Supreme Court

DAYTON, Ohio, June 28, 1932—Clayton G. Huber, former employee of the Gardner-Harvey Company of Middletown, recently petitioned the Ohio Supreme court to review his case before the Industrial Commission of Ohio, involving refusal by the Commission to grant him an award as a sufferer from tuberculosis, following an accident at the paper plant, resulting in the loss of an arm.

Huber was injured in 1926 and his right arm was amputated at the shoulder. He was awarded compensation amounting to $3,966.96. Returning to his employment for a short time, Huber was stricken with tuberculosis, and he claims he is now permanently and continuously disabled.

Huber's application for modification of award was rejected by the Commission, his request for reconsideration was denied, and the Commission also refused his application for a rehearing. Consequently, the highest judiciary in the state has received his petition seeking an award under the state compensation laws.

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Dietz Towel Interfolding Machines

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TOILET PAPER MACHINES

For making Toilet and Paper Towel Rolls (With or without perforations)

AUTOMATIC TUBE MACHINES

For Making Wire-Stitched Toilet Tubes

Sanitary Crepe Towel Machines, Roll Tighteners, Slitting and Rewinding Machines, Drop Roll Slitting Machines, Photo Mount Beveling Machines, Rotary Card Cutting Machines, etc.
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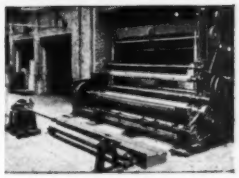


SAMUEL M. LANGSTON CO.
Camden, New Jersey

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, June 29, 1932.

BLANC FIXE.—The position of the blanc fixe market is practically unchanged. Prices are steady. The pulp is still quoted at from $42.50 to $45.00 per ton, in bulk; while the powder is selling at from 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER.—Some improvement was reported in the bleaching powder market. Contract shipments are moving in fairly satisfactory volume. Prices remain unchanged. Bleaching powder is quoted at from $1.75 to $2.00 per 100 pounds, in drums, at works.

CASEIN.—The casein market is easier. Domestic standard ground is now quoted at 5 cents and finely ground at 6 cents per pound. Argentine standard ground is still selling at 8 cents and finely ground at 8½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Although demand for caustic soda is restricted the market is generally steady. Solid caustic soda is quoted at from $2.50 to $2.55. The flake and the ground are selling at from $2.90 to $2.95 per 100 pounds, in large drums, at works.

CHINA CLAY.—The china clay market is fairly active. Prices are affected by foreign exchange fluctuations. Imported china clay is quoted at from $10 to $15 per ton, ship side; while domestic paper making clay is selling at from $5 to $12 per ton, at mine.

CHLORINE.—Conditions in the chlorine market are fairly satisfactory. The contract movement is mainly along seasonal lines. Prices are holding to schedule. Chlorine is quoted at $1.75 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—No radical changes were reported in the rosin market. The grades of gum rosin used in the paper mills are quoted at from $3.50 to $3.80 per 280 pounds, in barrels, at works. Wood rosin is selling at $2.80 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—The salt cake market is practically marking time. Prices remain unchanged. Salt cake is quoted at from $15 to $16; chrome salt cake at from $12 to $13 per ton, in bulk, at works. Imported salt cake is selling at from $14 to $15 per ton, ship side.

SODA ASH.—Trading in the soda ash market is moderately active. Shipments against contract are going forward in fair volume. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows; in bulk, $1.00; in bags, $1.25; and in barrels, $1.38.

STARCH.—The starch market is exhibiting a fairly strong undertone. Prices are generally holding to formerly quoted levels. Special paper making starch is quoted at $2.44 per 100 pounds, in bags; and at $2.71 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA.—Demand for sulphate of alumina is fairly persistent. Prices are holding to schedule. Commercial grades are selling at from $1.25 to $1.40; while iron free is selling at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market is rather quiet. Sulphur is quoted at $18 per long ton, on orders of 1,000 tons, or over, on yearly contracts; and at $20 per ton on any smaller quantity over that period. On spot and near by car loads, the quotation is $21 per ton.

TALC.—Most of the business transacted in the talc market during the past week was along routine lines. Domestic talc is still quoted at from $16 to $18 per ton, in bulk, at mine; while imported talc is selling at from $18 to $22 per ton, in bags, ship side.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	6.50	@38.00
Bonds	5.00	@53.25
Index	6.00	@12.00
Writings—		
Extra Superfine	6.50	@15.00
Superfine	6.25	@14.75
Tub sized	4.50	@ 7.00
Engine sized	4.00	@ 5.00
Book, Cased—		
S. & S. C.	5.25	@ —
M. F.	3.75	@ 5.00
Coated and Enamel	6.25	@ 9.75
Lithograph	6.75	@11.25
Tissues—Per Ream—		
White No. 1	.65	@ .70
Anti-Tarnish M. G. only	.65	@ .70
Colored	.70	@ .90
White No. 2	.50	@ .60
Kraft	.65	@ .70
Manila	.55	@ .60
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.00	@ 5.25
No. 2 Wood	3.50	@ 4.00
Butchers	3.37½	@ —
Fibre Papers—		
No. 1 Fibre	4.25	@ 5.50
No. 2 Fibre	4.00	@ 4.75
Common Bogus	1.50	@ 3.00
Screenings	2.00	@ 3.00
Card Middies	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs., No. 1	.09¾	@ —
No. 2	.11¼	@ —
Bleached, basis 20 lbs.	.11¾	@ —

(Delivered New York)

News, per ton—		
Roll, contract	53.00	@ —
Rolls, spot	53.00	@ —
Sheets	58.00	@ —
Side Runs	38.00	@42.00
Kraft—		
No. 1 Domestic	4.75	@ 6.00
No. 2 Domestic	3.25	@ 4.00
Southern	3.25	@ 4.00
Imported	3.50	@ 4.30
Boards—per ton—		
News	24.00	@25.00
Straw	34.50	@45.00
Chip	24.00	@25.00
Binders' Boards	62.00	@70.00
Standard 85 Test Liner	30.00	@32.50
Sgl. Mla. Lt. Chip	35.00	@37.50

(F. o. b. Mill)

Wood Pulp Boards	70.00	@80.00

Mechanical Pulp

(On Dock)

No. 1 Imported—		
Moist	19.00	@21.00
Dry	21.00	@22.00

(F. o. b. Mill)

No. 1 Domestic	18.00	@24.00

Chemical Pulp

(On Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	2.10	@ 2.90
Easy Bleaching	1.60	@ 1.75
No. 1 strong unbleached	1.50	@ 1.65
Mitscherlich unbleached	1.60	@ 1.75
No. 2 strong unbleached	1.25	@ 1.35
No. 1 Kraft	1.50	@ 1.65
No. 2 Kraft	1.35	@ 1.40
Sulphate—		
Bleached	1.85	@ 2.15

(F. o. b. Pulp Mill)

Sulphite (Domestic and Canadian)—		
Bleached	2.10	@ 3.75
Easy Bleaching	1.75	@ 1.90
News	1.50	@ 1.65
Mitscherlich	2.40	@ 2.55
Kraft (Domestic)	1.50	@ 2.75

(Delivered Paper Mills)

Soda Bleached	2.25	@ —

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	4.00	@ 4.25
New White, No. 2	3.00	@ 3.25
Silesias No. 1	3.75	@ 4.00
New Unbleached	5.50	@ 6.00
New Soft Blacks	2.75	@ 3.00
Blue Overall	3.00	@ 3.50
Fancy	1.50	@ 1.75
Washables	1.15	@ 1.40
Mixed Khaki Cuttings	2.50	@ 3.00
Pink Corset Cuttings	2.75	@ 3.25
O. D. Khaki Cuttings	3.00	@ 3.25
Men's Corduroy	1.00	@ 1.25
New Mixed Blacks	2.25	@ 2.50

Old Rags

White, No. 1—		
Repacked	3.00	@ 3.50
Miscellaneous	2.00	@ 2.25
White, No. 2—		
Repacked	1.75	@ 2.00
Miscellaneous	1.50	@ 1.75
Thirds and Blues—		
Repacked	1.50	@ 1.75
Miscellaneous	1.00	@ 1.25
Black Stockings	2.00	@ 2.25
Roofing Rags—		
No. 1	.53	@ .58
No. 2	.48	@ .53
No. 3	.43	@ .48
No. 4	.38	@ .43
No. 5A	.33	@ .38

Foreign Rags

New Rags

New Dark Cuttings	1.40	@ 1.50
New Mixed Cuttings	1.60	@ 1.75
New Light Silesias	3.40	@ 3.50
Light Flannelettes	3.25	@ 3.50
Unbleached Cuttings	5.50	@ 6.00
New White Cuttings	4.75	@ 5.00
New Light Oxfords	4.00	@ 4.25
New Light Prints	2.00	@ 2.25

Old Rags

No. 1 White Linens	5.25	@ 5.50
No. 2 White Linens	4.50	@ 4.75
No. 3 White Linens	3.25	@ 3.75
No. 4 White Linens	1.75	@ 2.25
No. 1 White Cotton	4.00	@ 4.25
No. 2 White Cotton	3.00	@ 3.25
No. 3 White Cotton	2.25	@ 2.50
No. 4 White Cotton	1.40	@ 1.50
Extra Light Prints	1.90	@ 2.10
Ord. Light Prints	1.60	@ 1.75
Med. Light Prints	1.40	@ 1.55
Dutch Blue Cottons	1.35	@ 1.40
French Blue Linens	1.80	@ 1.90
German Blue Linens	1.70	@ 1.80
German Blue Cottons	1.20	@ 1.25
Checks and Blues	1.25	@ 1.30
Lindsay Garments	.75	@ .80
Dark Cottons	.70	@ .75
Old Shopperies	.55	@ .60
New Shopperies	.60	@ .65
French Blues	1.25	@ 1.30

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	1.00	@ 1.10
Domestic	1.15	@ 1.25
Wool Tares, light	.80	@ .85
Wool Tares, heavy	.80	@ .85
Bright Bagging	.75	@ .80
Small Mixed Rope	.80	@ .90
Manila Rope—		
Foreign	1.50	@ 1.60
Domestic	1.50	@ 1.75
New Burlap Cut	1.65	@ 1.75
Hessian Jute Threads—		
Foreign	2.60	@ 2.75
Domestic	2.80	@ 3.00

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, white, No. 1	2.00	@ 2.15
Hard, white, No. 2	1.40	@ 1.50
Soft, white, No. 1	1.30	@ 1.40
White envelope cuttings	1.60	@ 1.70
Flat Stock—		
Stitchless	.65	@ .70
Overissue Mag.	.65	@ .70
Solid Flat Book	.55	@ .60
Crumpled No. 1	.40	@ .45
Solid Book Ledger	1.50	@ 1.75
Ledger Stock	.60	@ .70
New B. B. Chips	.20	@ .30
Manilas—		
New Env. Cut	1.30	@ 1.40
New Cuttings	1.05	@ 1.15
Extra No. 1 old	.90	@ 1.00
Print	.40	@ .45
Bogus Wrapper	.40	@ .45
Container	.25	@ .30
Old Kraft Machine—		
Compressed bales	.75	@ .85
News—		
No. 1 White News	1.25	@ 1.35
Strictly Overissue	.35	@ .45
Strictly Folded	.25	@ .30
No. 1 Mixed Paper	.15	@ .20

CLINTON STARCHES

Special Grades for Beater and Top Sizing

Manufactured by

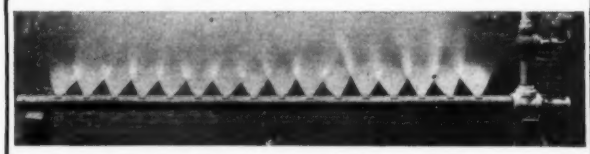
CLINTON CORN SYRUP REFINING COMPANY

CLINTON, IOWA

QUALITY SERVICE

"M & W" CRISS CROSS SHOWER PIPES

"WILL NOT RIDGE THE WIRES OR MAKE STREAKS"



FOR PAPER MACHINE WIRES, FELTS AND SCREENS

THE MOORE & WHITE COMPANY

Paper Mill Machinery Philadelphia, U. S. A.

CASEIN

ANY GRADE ANY QUANTITY

THE CASEIN MFG. COMPANY OF AMERICA, Inc.

205 E. 42nd St. New York, N. Y.

Oldest and Largest Producers of Casein in America

THE CLARK-AIKEN CO.

Successors to
H. C. Clark & Son Machine Co.

PAPER MILL MACHINERY

LEE, MASS.

Revolving Paper Cutters—Rag Cutters—Cylinder Paper Machines—Washing and Beating Engines—Chilled Iron and Paper Calenders—Fan and Stuff Pumps—Engine Roll Bars and Bed Plates—
Cylinder Molds—Marshall Drives—Slitters and Rewinders—Reels—Dryers with Improved Packing Boxes—Wet Machines—Gun Metal and Rubber Rolls—Rolls Reground.

PERMANENT COLORS

Browns Greens Reds Yellows

BROWNS
Oxides of Iron
Turkey Umbers

GREENS
Chromic Oxides
Guignet's Green

REDS
All types and shades of Oxides of Iron

YELLOWS
Ochres
Iron Hydroxides

Asbestines and Talcs for Fillers

C. K. WILLIAMS & CO.

EASTON, PA.

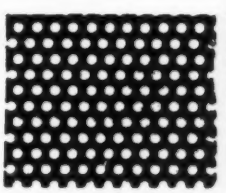
Your Card in This

Space Will Bring

Results

Perforated Metal Screens

For Pulp and Paper Mills



STEEL, COPPER, BRASS, BRONZE, MONEL METAL and other Alloys punched for Centrifugal and Rotary Screens, Pulp Washers, Drainer Bottoms, Filter Plates, etc.

".093" Round

CHARLES MUNDT & SONS

63-65 FAIRMONT AVE. JERSEY CITY, N. J.

Twines
(F. o. b. Mill)

Cotton—			
B. C., 18 basis	.30	@	.32
No. 1	.20	@	.22
No. 2	.19	@	.20
No. 3	.17	@	.18
A. Italian, 18 basis	.36	@	.37
Finished Jute—			
Dark, 18 basis	.18	@	.20
Light, 18 basis	.20	@	.22
Jute Wrapping, 3-6 Ply—			
No. 1	.15½	@	.16½
No. 2	.11¾	@	.12¾
Tube Rope—			
4-ply and larger	.09¾	@	.11¾
Fine Tube Rope—			
4-ply	.11	@	—
3-ply	.12	@	—
2-ply	.13	@	—
Paper Makers Twine			
Balls	.08¾	@	.10¾
Box Twine, 2-3 ply	.07	@	.08
Jute Rope	.09	@	.10
Amer. Hemp, 6	.27	@	.29
Java Sisal—			
No. 1 Basis	.10	@	—
No. 2 Basis	.09	@	—
New Zealand Sisal	.10	@	—
Sisal Lath Yarn—			
No. 1	.12	@	.14
No. 2	.10	@	.12
Manila Twine	.23	@	.28

CHICAGO

Paper
(F. o. b. Mill)

Rag Bond	.30	@	.53¾
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.04	@	.11
Superfine Writing	.18	@	.24
No. 1 Fine Writing	.14	@	.18
No. 2 Fine Writing	.12	@	.14
No. 3 Fine Writing	.07	@	.18
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¾	@	.06¼
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¼	@	.05¼
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.03¾	@	.03¾
No. 1 Kraft	4.50	@	5.00
Southern Kraft	3.25	@	—
No. 2 Kraft	3.25	@	—
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue	.07	@	.07¼
White Tissue	.07¼	@	.07½
(Delivered Central Territory)			
News, per ton—			
Rolls, contract	53.00	@	—
Sheets	58.00	@	—
Boards, per ton—			
Plain Chip	30.00	@	35.00
Solid News	32.50	@	37.50
Manila Lined Chip	40.00	@	45.00
Container Lined—			
85 Test	50.00	@	55.00
100 Test	55.00	@	60.00

Old Papers
(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope cuttings	1.75	@	1.80
No. 1 Hard White	1.55	@	1.60
No. 1 Soft White	1.40	@	1.45
Ledger & Writings	.55	@	.65
Solid Books	.50	@	.55
Blanks	1.15	@	1.20
Krafts	.95	@	1.00
New Kraft Cuts	1.40	@	1.50
Manila Env. Cuts	1.40	@	1.50
Ex. No. 1 Manila	1.00	@	1.10
Print Manila	.35	@	.40
Overissue News	.45	@	.55
Old Newspapers—			
No. 1	.45	@	.50
No. 2	.30	@	.35
Mixed Papers—			
No. 1	.25	@	.30
No. 2	.15	@	.20
Roofing Stocks—			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper
(F. o. b. Mill)

Bonds	.04	@	.40
Ledgers	.06	@	.40
Writings—			
Superfine	.10	@	.18
Extra Fine	.15	@	.26
Fine	.15	@	.26
Fine, No. 2	.10	@	.25
Fine No. 3	.05¾	@	.18
Book, M. F.	.04¾	@	.07
Book, S. S. & C.	.05	@	.07½
Book, Coated	.06	@	.16
Coated Lithograph	.06	@	.11
Label	.07	@	.11
No. 1 Jute Manila	.06	@	.09
Manila Sul., No. 1	.03	@	.05
Manila No. 2	.03	@	.04
No. 1 Kraft	.05¼	@	.06
No. 2 Kraft	.03¾	@	.04¾
Southern Kraft No. 1	—	@	.04
Southern Kraft No. 2	—	@	.03¾
Common Bogus	.03	@	.04
(Delivered Philadelphia)			
News Print Rolls	58.00	@	62.00
Straw Board	50.00	@	—
News Board	30.00	@	32.00
Chip Board	25.00	@	27.50
Wood Pulp Board	85.00	@	95.00
Binder Boards—			
No. 1, per ton	73.00	@	75.00
No. 2, per ton	63.00	@	65.00
Carload lots	62.00	@	67.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply	2.00	@	2.25

Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.05	@	.05½
New White, No. 2	.04	@	.04½
Light Silesias	.04	@	.04½
Silesias, No. 1	.04	@	.04½
Black Silesias, soft	.04	@	—
New Unbleached	.05½	@	.06
Washable, No. 1	.02	@	.02½
Blue Overall	.04	@	.04½
Cottons—According to grades—			
Washable, No. 2	.01½	@	.02
New Blue	.01¾	@	.02
Fancy	.02	@	—
New Black Soft	.02	@	.03
New Light Seconds	.01¾	@	.02
New Dark Seconds	1.85	@	2.00
Khaki Cuttings—			
No. 1 O.D.	.04½	@	.05
No. 2 Mixed	.03½	@	.04
Corduroy	.02½	@	.03
New Canvas	.06½	@	.07
New Black Mixed	.02½	@	.03

Domestic Rags (Old)

White No. 1—			
Repacked	3.00	@	3.50
Miscellaneous	2.00	@	2.50
M. G.	3.50	@	4.00
Thirds and Blues—			
Miscellaneous	1.00	@	1.25
Repacked	1.50	@	1.75
Black Stockings (Export)	3.00	@	3.50
Roofing Stock—			
Foreign No. 1	1.00	@	1.10
Repacked	.70	@	.80

Bagging
(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.25	@	1.50
Domestic	1.50	@	—
Manila Rope	2.00	@	2.25
Sisal Rope	1.25	@	1.50
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	1.25	@	1.50
No. 2	.80	@	1.00
Wool Tares, heavy	2.75	@	—
Mixed Strings	1.15	@	1.25
No. 1 New Light Burlap	2.25	@	2.50
New Burlap Cuttings	2.00	@	2.25

Old Papers
(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	1.90	@	2.00
No. 2 Hard White	1.75	@	1.80
No. 1 Soft White	1.60	@	1.70
No. 2 Soft White	1.40	@	1.50
No. 1 Mixed	.45	@	.55
No. 2 Mixed	.40	@	.50
Solid Ledger Stock	1.00	@	1.10
Writing Paper	.80	@	.90
No. 1 Books, heavy	.55	@	—
No. 2 Books, light	.40	@	—
No. 1 New Manila	1.25	@	1.50
No. 1 Old Manila	1.00	@	1.25
Print Manila	.40	@	—
Container Manila	.40	@	.45
Old Kraft	.90	@	1.00
Common Paper	.15	@	.20
No. 1 Mixed Paper	.20	@	.25
Straw Board, Chip	.25	@	.35
Binders Board, Chip	.25	@	.35
Corrugated Board	.30	@	.35
Overissue News	.40	@	.45
Old Newspaper	.20	@	.25

BOSTON

Paper
(F. o. b. Mill)

Ledgers—			
Sulphite	.06	@	.12½
Rag Content	.12	@	.30
All Rag	.36	@	.52½
Bonds—			
Sulphite	.05½	@	.11½
Rag Content	.12	@	.30
All Rag	.36	@	.65
Writings	.06½	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06¾
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.04½	@	.05½
No. 2 Kraft	.03¼	@	.03½
(F. o. b. Boston)			
Southern Kraft	.03¼	@	.03½
(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots.)			
Common Bogus	.02	@	.02¾
(Delivered New England points)			
News Print, rolls	—	@	52.50
Straw Board, rolls.009	—	@	35.00
Straw Board in Sheets, basis 35 to 70s	—	@	40.00
Filled News Board	25.00	@	30.00
Chip Board	—	@	25.00
Chip Board (Creasing)	25.00	@	27.50
Single Manila Lined Chip	—	@	35.00
Single White, Patent Coated News Board—Bender	45.00	@	55.00
Wood Pulp Board	70.00	@	75.00
Binder Boards	62.00	@	75.00

Old Papers
(F. o. b. Boston)

Shavings—			
No. 1 Soft White	—	@	1.35
No. 1 Old Manila	.65	@	.75
No. 2 Mixed	.50	@	.55
No. 1 Mixed	.75	@	.85
Solid Ledger Books	1.30	@	1.50
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.90	@	1.10
No. 1 Books, heavy	.60	@	.70
No. 1 Books, light	—	@	.45
Crumpled Stitchless Book Stock	1.00	@	1.25
Manila Env. Cuttings	1.50	@	1.60
No. 1 Old Manila	.80	@	.90
White Blank News	1.20	@	1.30
Kraft No. 1	.70	@	.80
Manila	.80	@	.90
No. 1 Mixed Papers	.12½	@	.15
Print Manila	.30	@	.40
Overissue News	.35	@	.45
Old Newspapers	.22½	@	—
Box Board, Chip	.17½	@	.20
Corrugated Boxes	.17½	@	.22½
Screening Wrappers	.25	@	.32½

Bagging
(F. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.00
Domestic	.75	@	.80
Manila Rope—			
Foreign	1.50	@	1.60
Domestic	1.55	@	1.75
Transmission Rope	1.00	@	—
Mixed String	—	@	.32½
Jute Rope	—	@	.75
Jute Carpet Threads	.25	@	.30
Bleachery Burlap	1.75	@	2.00
Scrap Burlap	.50	@	.55
No. 1 Scrap Burlap	.80	@	.90
Scrap Sisal	.75	@	.85
Scrap Sisal for shredding	.90	@	1.00
Wool Tares, heavy	.60	@	.65
New Burlap Cutting	.75	@	.90
Australian Wool Pouches	1.25	@	1.50
Heavy Baling Bagging	1.00	@	1.25
Paper Mill Bagging	.60	@	.70
Bagging No. 2	.20	@	.25
No. 1 Burlap	2.75	@	3.00

Domestic Rags (New)
(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	—	@	.01½
New White No. 1	.04	@	.04½
New White No. 2	.03	@	.03¾
Silesias No. 1	—	@	.03
New Black Silesias	.02½	@	.03¼
New Unbleached	.05	@	.05¼
Fancy	—	@	.02½
Washable	—	@	.01¾
Cottons—According to grades—			
Blue Overalls	—	@	.03¾
New Black, soft	.04	@	.04½
Khaki Cuttings	.03	@	.03¼
O. D. Khaki	.03½	@	.03¾
Corduroy	.02¾	@	.03
New Canvas	—	@	.05
B.V.D. Cuttings	.04	@	.04¼

Domestic Rags (Old)
(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	3.00	@	3.50
Miscellaneous	2.00	@	2.25
White No. 2—			
Repacked	.02¼	@	.02½
Miscellaneous	.02	@	.02¼
Twos and Blues	.90	@	1.00
Thirds and Blues—			
Repacked	.75	@	.85
Miscellaneous	.70	@	.75
Black Stockings	2.00	@	2.25
Roofing Stock—			
No. 1	.35	@	.40
No. 2	.30	@	.35
No. 3	.25	@	.30

Foreign Rags
(F. o. b. Boston)

Dark Cottons	.40	@	.50
New No. 1 White Shirt Cuttings	3.75	@	4.00
Dutch Blues	1.25	@	1.50
New Checks & Blues	2.25	@	2.50
Old Fustians	—	@	.85
Old Linsey Garments	.55	@	.65

TORONTO

Paper
(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.10¼	@	—
No. 2 Sulphite	.08½	@	—
No. 1 Colored	.10¾	@	
No. 2 Colored	.09	@	.10½
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
Book—			
No. 1 M. F. (Carloads)	6.65	@	—
No. 3 M. F. (Carloads)	6.20	@	—
No. 1 S. C. (carloads)	7.15	@	—
No. 3 S. C. (carloads)	6.65	@	—
No. 4 S. C. (carloads)	5.70	@	—
No. 1 Coated and Litho	12.50	@	—
No. 2 Coated and Litho	11.50	@	—
No. 3 Coated and Litho	10.00	@	11.50
Coated tinted	14.00	@	—
Wrapping—			
Rag Brown	4.40	@	—
White Wrap	3.00	@	—
"B" Manila	4.90	@	—
No. 1 Manila	5.40	@	—
Fiber	5.40	@	—
Kraft, M. F.	5.75	@	—
Kraft No. 2	5.40	@	—

(Delivered Toronto)

News, per ton—			
Rolls (contract)	52.50	@	53.00
Sheets	57.50	@	—

Pulp
(F. o. b. Mill)

Ground Wood	30.00	@	32.00
Sulphite easy bleaching	45.00	@	—
Sulphite, news grade	40.00	@	—
Sulphite, bleached	58.00	@	65.00
Sulphate	55.00	@	—

Old Waste Paper
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	2.50	@	—
Soft White	2.25	@	—
White Blk. News	1.50	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	—
Light and Crumpled Book Stock	.80	@	—
Ledgers and Writings	1.00	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	.65	@	—
Kraft	1.75	@	—
News and Scrap—			
Strictly Overissue	.50	@	—
Strictly Folded	.50	@	—
No. 1 Mixed Paper	.40	@	—

Domestic Rags
(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.09½	@	.10
Fancy Shirt Cuttings	.06	@	.06¾

JUL 5 - 19

PAPER TRADE JOURNAL

Vol. XCIV JUNE 30, 1932 No. 26

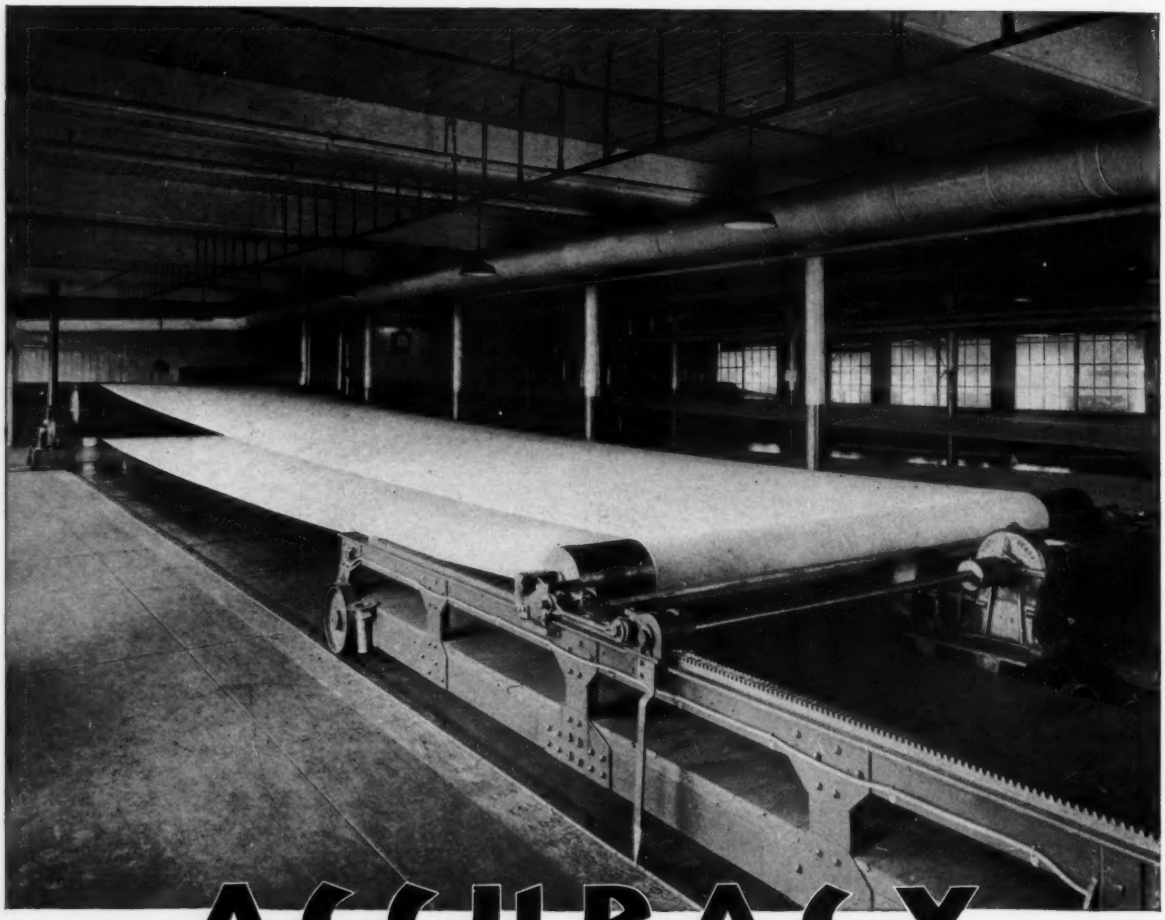
PULP

PERKINS-GOODWIN CO.

Established 1846

551 FIFTH AVENUE, NEW YORK

PAPER



ACCURACY

Each step in the manufacturing of Kenwood Felts is checked by means of a thorough and meticulous inspection to make sure that in every way it conforms to certain pre-established standards.

Accuracy in the matter of size, and ability to pull certain loads without distortion is a vital quality in every felt. Kenwood Research has developed a method of accurately measuring these qualities.

The finished size of all Kenwood Felts is checked under known and recorded degrees of tension. The amount of tension registered when the felt is at its proper length and width is a barometer of its load carrying ability. Each felt must meet definite standards before it can be passed by the inspector.

This is one of the details of careful manufacturing which you enjoy only when you buy Kenwood Felts.

KENWOOD WOOL PRODUCTS

The application of the device for measurement of tension and pressure on paper maker's felts is covered by patents owned and controlled by F. C. Huyck & Sons.

KENWOOD *tanned* FELTS

F. C. HUYCK & SONS
KENWOOD MILLS, ALBANY, N. Y.
KENWOOD MILLS LTD., ARNPRIOR, ONTARIO, CANADA

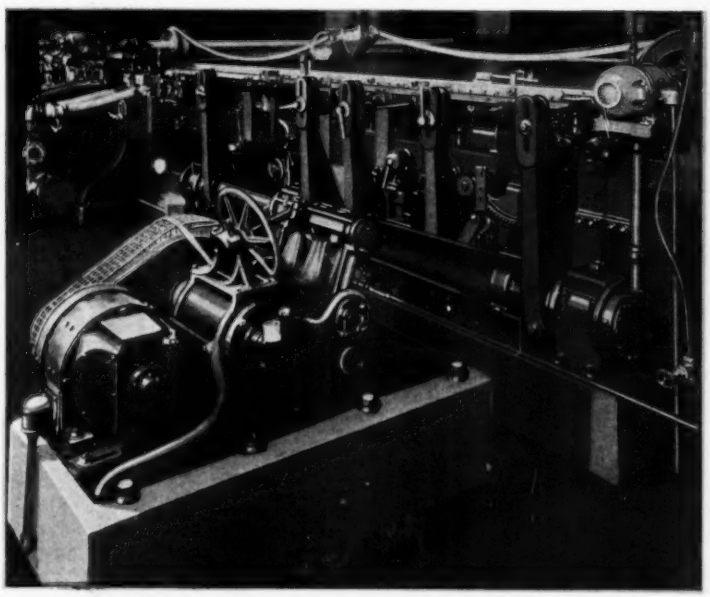
Entered as second class matter, March 3, 1925, at the Post Office at East Stroudsburg, Pa., under the Act of Congress of March 3, 1879. Published every Thursday by the Lockwood Trade Journal Co. at 34 N. Crystal St., East Stroudsburg, Pa. Executive and Editorial Offices: 10 E. 39th St., New York, N. Y.

Put this UP-TO-DATE *shake mechanism on your old machine*

A MECHANICALLY perfected SUPER-SHAKE, suitable for either old machines or new, and having the following features:

1. Speed range 250 to 750 shakes per minute, depending on conditions, usually double the former speeds.
2. Speed of shake adjustable while running.
3. Length of stroke varied while running.
4. Breast roll shaken while table rolls remain stationary, or both shaken together.
5. Table rails shaken while breast roll remains stationary, or both shaken together.
6. Shake action intensified or diminished at various points along the forming area (by starting or stopping the several sections) to obtain maximum results.

MOVIE DEMONSTRATION
See our complete moving picture demonstration showing the operation of the Beloit Super Shake. We have available a complete film (standard 16 M.M.) which will be sent to any mill without any obligation.



Showing the shake mechanism of the improved Beloit Universal High-Speed Super-Shake on a machine making high-grade papers. This shake can be applied to any machine—from news to highest-grade book or bond.

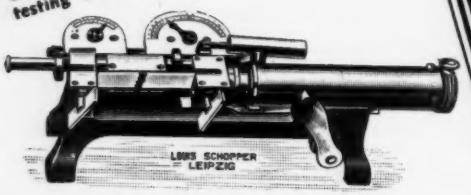
This new shake mechanism may be installed on your old machine, thus permitting the machine to be brought up to date in speed, production, efficiency and economy of operation, without sacrifice in formation.

It will pay you to investigate this modern development. A letter brings you complete details.

BELOIT IRON WORKS - BELOIT, WIS., U. S. A.

SCHOPPER

Depression prices should be checked by testing the quality offered and delivered.



Rapid Tensile Tester

Rapid — Accurate — Portable — The tensile strength is the basic strength of all materials.

Write for folder P-15 which will give you the Standard Tensile Strength Tests of various grades of paper, made from ground wood, sulphite [chemical wood], rag and various combinations.

TESTING MACHINES, INC.
314 BROADWAY NEW YORK, N. Y.
Largest line of Standard Testers

SPECIAL
PAPER STARCH

For many years the reliable beater starch. Also STARCHES and GUMS of quality, with economy, for tub and calendar sizing.

Manufactured by

CORN PRODUCTS REFINING COMPANY
17 Battery Place New York, N. Y.

88 YEARS EXPERIENCE

In Making

Felts for Paper Manufacturers certainly recommends our ability to satisfactorily serve your requirements.

OUR TRIUNE AND
MULTIPLE PLY
DRYER FELTS

English Weave—Fine Face Felt in Three, Four, Five and Six Ply—60" to 214" in width—insure large production. Absolutely no felt marks in paper.

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Established 1844
FITCHBURG, MASS.

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There is no sweeping platitude. It is true . . . absolutely true. Mills that have taken the slight trouble to investigate can vouch for the accuracy of the statement . . . which mills, by the way, are today Orr users and Orr boosters. The line is complete . . . contains the exact length, width, and texture your particular machine must have.

An inquiry will bring an Orr Felt specialist qualified to suggest the particular felt that will remove the most water . . . and give the best service.

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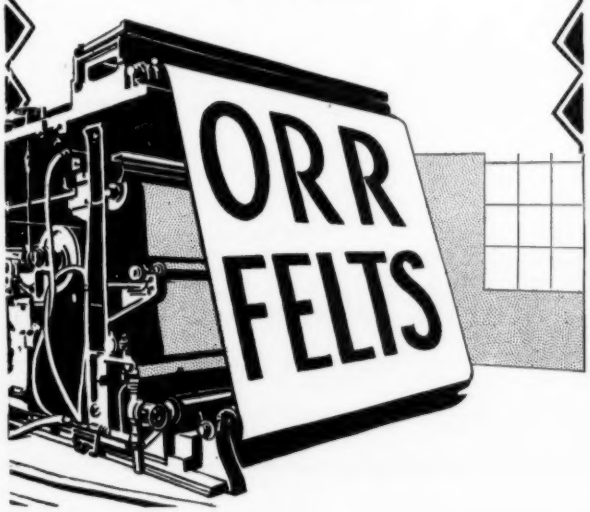
Piqua, Ohio.



THE POWER IN SMALL THINGS

"When you find yourself forgetting the importance of details — it's good to be reminded of 'The Lion and the Mouse'."

—UNCLE JAKE

THE vital importance of the "detail" is universally recognized in every field of Paper-manufacture. We believe it to be more than ever vital now — when quality must be safeguarded and standards maintained against all doubt and pessimism.

By continued attention to the "little things" as well as the big, we will be the better prepared for the coming of Prosperity which we believe is just around the corner.

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KALAMAZOO VEGETABLE PARCHMENT COMPANY ▸ KALAMAZOO MICHIGAN ▸

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"HAFSLUND BEAR"
Bleached Sulphite

"FORSHAGA"
Bleached Sulphite

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Extra Strong Kraft

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H. & M.

COLORS FOR PAPER

have proved they are the best and are being used daily by the greatest number of paper mills.

Service and Quality will tell

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286 Spring Street, New York, N. Y.
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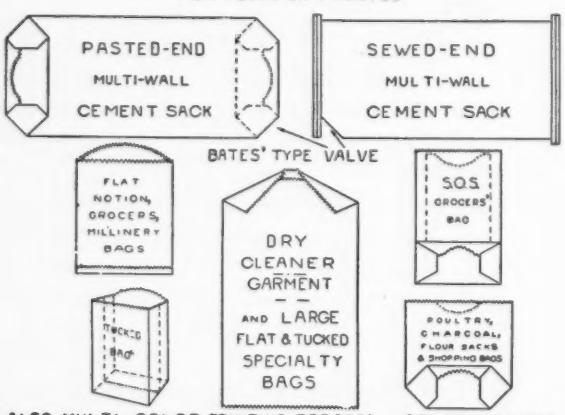
PHILADELPHIA—South St. and Delaware Ave.
Factories—NEWARK, N. J. and BOUND BROOK, N. J.
A UNIT OF AMERICAN CYANAMID COMPANY

POTDEVIN
OVER 60 MODELS OF PAPER BAG
MACHINERY
FOR PLAIN OR PRINTED


PASTED-END MULTI-WALL CEMENT SACK
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FLAT NOTION, GROCERS, MILLINERY BAGS
DRY CLEANER GARMENT — AND LARGE FLAT & TUCKED SPECIALTY BAGS
S.O.S. GROCERS' BAG
POULTRY, CHARCOAL, FLOUR SACKS & SHOPPING BAGS

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1223 38TH STREET BROOKLYN, N.Y. U.S.A.

THE DRAPER FELTS

All kinds and styles of Felts for all kinds and styles of Papers.

Write us about your Felt problems and let us help you reduce your Felt Costs—we will call anywhere at any time.

DRAPER BROS. COMPANY
CANTON. MASS.
Woolen manufacturers since 1856

The CLEARING HOUSE of THE PAPER TRADE

"SITUATIONS WANTED" ADVERTISEMENTS—4c a word, double rates for heavy face type. Minimum charge $1.00. If repeated ½ rate will be charged for each consecutive repetition.

"HELP WANTED" ADVERTISEMENTS—4c a word. Double rate for heavy face type. Minimum charge $1.00.

CLASSIFIED ADVERTISEMENTS—4c a word. Double rate for heavy face type. Minimum charge $1.00.

All classified "Help Wanted" and "Situation Wanted" advertisements are payable in advance.

HELP WANTED

IF YOU are open to overtures for new connections and qualified for a salary between $2,500 and $25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service, of recognized standing and reputation, through which preliminaries are negotiated confidentially for positions of the calibre indicated. The procedure is individualized to each client's personal requirements; your identity covered and present position protected. Established twenty-two years. Send only name and address for details. R. W. Bixby, Inc., 117 Downtown Building, Buffalo, New York.

SALESMAN to represent mill to Jobbers in Middle West territory. Must have successful record selling a full line of wrapping papers. Give full particulars. Address Box 32-221, care Paper Trade Journal. T.F.

IF you are open to negotiations for a new connection and are qualified by training and experience for a salary of $3,000 to $30,000, you are invited to send your name and address for details. Strictly confidential. No obligations. American Industrial Service, 201 Forrest Bldg., Philadelphia, Pa. T.F.

SITUATIONS WANTED

SUPERINTENDENT Day or Night. 30 years experience all grades of Lightweight Paper Kraft Tissue Wax Color Twisting. Address Box 32-92, care Paper Trade Journal. T.F.

INDUSTRIAL ENGINEER, with twenty years experience and ability in paper manufacturing, process-power steam and hydro-electric plants as executive, consultant, designer and erector. Plant operation, maintenance and rehabilitation have resulted successfully. Have produced many operation analyses indicating reduced unit costs and improved quality of product. Have used considerable inventive genius for new processes applied to the paper industry. Have produced highly satisfactory results on new and old projects. These are my best references. Technical graduate with major degrees. Desire connection where ability to produce results will be recognized. Address Box 32-251, care Paper Trade Journal. EOW

PLANT ENGINEER—17 years experience in paper and pulp mill operation, maintenance, power and construction. Graduate engineer. References. Address Box 32-210, care Paper Trade Journal. J-21

FOURDRINIER Machine Tender, 22 years experience most all grades of paper. 43 years old. Married. Steady, Reliable. Address Box 32-231, care Paper Trade Journal. J-30

GENERAL superintendent or superintendent. Why permit a monopoly in the manufacture of good toilet tissue paper. My experience in this field has brought out a strong, soft, raggy sheet that would pass any hospital laboratory test for purity. Address Box 32-260, care Paper Trade Journal J-7

PAPER MAKER would like to connect with mill sales department or paper house where expert knowledge of manufacture will be of value. Has had exceptional experience developing special papers to meet exact requirements. Address Box 32-268, care Paper Trade Journal. J-30

SITUATIONS WANTED

EFFICIENT Board Mill Superintendent available. Years of experience manufacturing Box Board, Tag and Specialties, Construction and rebuilding old mills. References. Address Box 32-105, care Paper Trade Journal.

OFFICE OR MILL—Graduate Accountant wide practical mill experience, 10 years paper and bag industry. Excellent record organizing offices, Costs, Tabulating Machines. Now available, will start in any capacity. Address Box 32-265, care Paper Trade Journal. J-30

COLORMAN or Beater Foreman. Five years experience. Three years beater foreman. Two years colorman. Address Box 32-264, care Paper Trade Journal. J-7

MACHINE TENDER will go anywhere. Desires position on Fourdrinier or cylinder machine, any grade. Active experience. Married. References. Address Box 32-249, care Paper Trade Journal. J-30

TECHNICAL MAN—Graduate recognized Pulp and Paper School with operating and sales experience desires connection with sales organization that can realize on Technical Service or with Pulp or Paper Mill with Technical problems. Versed in Cooking, Bleaching, and Beater Room operation. Contacts in majority of mills in East and Middle West. Best of references. Address Box 32-253, care Paper Trade Journal. J-30

SALESMAN—Desires connection with Paper Converting Mill or Paper Manufacturer. Excellent sales record with Converting Mill making all grades of Plain and Printed Waxed and Gummed Papers Willing travel anywhere and available immediately. Address Box 32-273, care Paper Trade Journal. J-7

MISCELLANEOUS

CLARK MANUFACTURING COMPANY, Holyoke, Mass. Telephone 1828. Builders of cylinder moulds, couch and felt rolls, dandy rolls. We cover dandies and cylinders tight, for fast running machines. tf

Address Replies

to advertisements appearing under Box Numbers in care of

PAPER TRADE JOURNAL
10 East 39th St.
New York, N. Y

WANTED

MANUFACTURERS ONLY

PAPER Specialties wanted. What have you to offer? Correspondence invited. Bleysel Paper Company, Inc., 270 Lafayette St., New York, N. Y. J-30

WANTED—Established New England Mechanical Sales Agency is in position to give manufacturer real representation. Paper mill or power plant equipment preferred. Address Box 32-267, care Paper Trade Journal. J-30

WANTED—One M. G. Dryer of approximately 96" face, with or without a press. Address Box 32-259, care Paper Trade Journal. J-30

WANTED—Smith and Winchester Bottoming Machine. ¼ bbl. or ½ bbl. size. Address Box 32-254, care Paper Trade Journal. J-30

FOR SALE

PAPER COATING MACHINERY—Waxing, Oiling, Gumming, Gluing, Asphalt Duplexing Laboratory Coating and Treating machines. High speed. New improvement. MAYER COATING MACHINES COMPANY, INC., Rochester, N. Y. T.F.

SLITTERS FOR SALE. Factory Rebuilt Cameron Slitters, various sizes. Opportunity to secure good slitter at attractive price. Address Box 32-70, care Paper Trade Journal. T.F.

FOR SALE

1—Pusey and Jones Fourdrinier Paper Machine. Wire 104" by 65 feet. Three sets presses. 30 Dryers 48" by 102". Ten roll stack of Calenders. English Reel.

1—Pusey and Jones Fourdrinier Paper Machine. Wire 84" by 65 feet. Three sets presses. 30 Dryers 48" by 80". English Reel.

2—Stacks machine calenders 126" face.

1—Jones beater 61" x 48".

3—No. 2 Lannoye pulpers.

FRANK H. DAVIS COMPANY
175 Richdale Ave., Cambridge, Mass.

FOR SALE

Twenty-eight tons Extra Quality Super News in 30" Rolls—Basis 24 x 38—45

Apply to

Arthur S. Zabriskie, Inc.

11 West 42nd St.

NEW YORK, N. Y.

MODERN GROUNDWOOD MILL

with

Splendid Adjacent Stumpage

Ideally situated on tide water in Nova Scotia, ample timber supply, all year water shipments, modern electric power facilities, and dependable labor.

This property may be purchased for $1,200,000 cash plus value of inventories at date of sale, or if terms are desired, the price will be $1,600,000 plus value of inventories at date of sale with a cash payment of $300,000 and terms for the balance.

The seller might consider entering into a contract to purchase a portion of the output of this mill.

This offer expires July 15th, 1932. If you are interested, write Box 32-263, c/o Paper Trade Journal.

J-7

Many Times Some Little Classified Advertisement Placed in These Columns Brings Very Satisfactory Results

SITUATIONS WANTED

MECHANICAL ENGINEER and designer. 20 years experience paper mill industry. With prominent manufacturers here and abroad. Excellent record development, layout, design, maintenance sales. Best references. Address Box 32-274, care Paper Trade Journal. J-7

MAN—With twenty-five years practical experience in board, paper, felt and asbestos mills open for position. Last fifteen years as Supt., Mgr., Const. and Consulting Engineer. Latter three years in new development work. Age forty-three. Consider any reasonable offer. Address Box 32-275, care Paper Trade Journal. J-14

WANTED

WANTED—A job to put your plant back onto a paying basis. Twenty-three years practical experience in this work. Fourdrinier and Cylinder Mills, New Products, New Methods, results guaranteed. Best of references for results obtained. Address Box 32-276, care Paper Trade Journal. EOW

PATENT NOTICE

Paper Coating Process and Apparatus

THE Carl Munch Patent No. 1,847,065 was granted February 23, 1932 to THE CHAMPION COATED PAPER COMPANY, and notice is hereby given that all infringers of this patent will be vigorously prosecuted. J-30

EVERY WEEK—

The Paper Trade Journal publishes the happenings of interest in the Pulp and Paper Industry—Covers it completely is saying it a little clearer.

To reach buyers in this field, advertising in these columns can carry your message to many that are interested in your products.

As a member of the Audit Bureau of Circulations our circulation claims are not only authentic but provable.

The Paper Trade Journal
10 East 39th St. New York

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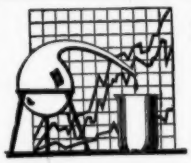
21 EAST 40TH STREET, NEW YORK
PULP AND PAPER MILL ENGINEER

KARL A. LEFREN, Inc.
CONSULTING ENGINEERS
171 Madison Ave. New York City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Specializing in Problems of the Cellulose Industries
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are good wires
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GUMMED SEALING TAPE
"GET THE BEST"
PAPER MANUFACTURERS CO. Inc.
PHILADELPHIA, PA.

Perforated Metal Screens
for every purpose
also elevator buckets of all kinds; chutes; hoppers; stacks and tanks.
MITCO Products — Interlocked Steel Grating; Shur-Site Stair Treads; Armorgrids.
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Offices in Principal Cities

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The Deister Concentrator Co.
(Incorporated 1906)
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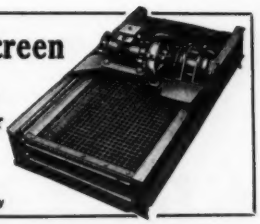
New York Office: 104 Pearl St., New York City


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Steam Turbine Co., Trenton, N.J.
Steam Turbines, for all speed and steam conditions; capacities up to 15,000 hp. Catalog D45. Helical Gears. Catalog R45. Centrifugal Pumps, for all capacities. Catalog B45. Centrifugal Blowers and Compressors. Catalog F-45. Worm Reduction Gears. Catalog R45. Flexible Couplings. Catalog K45. Water Wheels. Catalog T45.

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ASBESTINE FILLER
Reg. U. S. Patent Office
90% Retention

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CAST • ROLLED • FABRICATED
for all equipment exposed to corrosion by sulphite acids
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Felts and Jackets
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In accord with T. A. P. P. I. Standard Methods
Oils - Paper - Pulp Water - Microphotograph
Electrical, Mechanical, Physical, Chemical and Photometric Tests.
ELECTRICAL TESTING LABORATORIES
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ETL Know by Test

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STEEL CORES
FOR PAPER ROLLS
The FABRICATED STEEL PRODUCTS CO.
WHEELING, W. VA.

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Norwood Engineering Co.
Perkins & Son, Inc., B. F.
Textile Finishing Machinery Co.

COTTON ROLLS
Beloit Iron Works
Textile Finishing Mchy. Co.

COUCH ROLLS
American Wringer Co.
Moore & White Co.

COUPLINGS
De Laval Steam Turbine Co

CREPING MACHINES
Beloit Iron Works
Gibbs-Brower Co., Inc.
Hudson-Sharp Mch. Co.
Paper Converting Machine Co., Inc.
John Waldron Corp

CYLINDER MACHINES
Moore & White Co.

CYLINDER PAPER & BOARD MACHINES
Horne & Sons Co., J. H.

CUT-OFF SAWS
Murray, D. J. Mfg. Co.

CYLINDER COVERS
Wisconsin Wire Works

CYLINDER, RAILROAD AND DEVIL DUSTER
Moore & White Co., The

CYLINDER DRIVES
Moore & White Co., The

CYLINDER MOULDS
Beloit Iron Works
Glens Falls Machine Co.

CYLINDER WIRES
Appleton Wire Works
International Wire Works

DAMPENERS
Norwood Engineering Co.
Perkins & Sons, Inc., B. F.

DANDY ROLLS
Wisconsin Wire Works

DECKERS
Bird Machine Company
Glens Falls Machine Co.
Oliver United Filters Inc.
Valley Iron Works

DENSITY REGULATOR
Merritt Engineering & Sales Corp., The

DIE CUTTERS
Appleton Machine Co., The

DIGESTER FITTINGS
Duriron Company Inc., The
Michigan Steel Casting Co.
Stebbins Engineering & Mfg Co.

DIGESTER LININGS
Stebbins Engineering & Mfg. Co.

DISC BARKERS
Waterville Iron Works

DISPENSERS
Griffith-Hope Co.

DOCTORS
Bird Machine Co.

DOCTOR BLADES
Bird Machine Company

DRIVES (Paper Machinery)
Beloit Iron Works
Bird Machine Co., (Pulmax Drive Div.)
Farrel-Birmingham, Co.

DRIVES (SHORT CENTER)
Bird Machine Co., (Pulmax Drive Div.)

DRYER DOCTORS
Bird Machine Company

DRYERS
Beloit Iron Works
Horne & Sons Co., J. H.

DRUM WINDERS
Beloit Iron Works
Hudson-Sharp Mch. Co.

DRYING SYSTEMS
Pickles, W. F.
Ross Engineering Co., J. O.
Stickle Steam Specialties Co.
Waldron Corporation, The

DUSTING MACHINERY
Jones & Sons Co., E. D.
Norwood Engineering Co.

DYES, (ANILINE)
General Dyestuff Corp.
Heller & Merz
Geigy Colour Co., The
National Aniline & Chemical Co.

ELECTRIC EQUIPMENT
General Electric Co.

EMBOSSING CALENDERS
Norwood Engineering Co.
Perkins & Sons, Inc., B. F.
Textile Finishing Machinery

EMBOSSING MACHINES
Hudson Sharp Machine Co.
Paper Converting Machine Co., Inc.
John Waldron Corp.

EMBOSSING MACHINE (Napkin)
Paper Converting Machine Co.
John Waldron Corp.

EMBOSSING ROLLS
Textile Finishing Mchy. Co.

ENGINEERS
Dorr Company
Layne & Bowler, Inc.
Little, Inc., Arthur D.
Orthmann Laboratories, Inc.

ENGINES (STEAM)
Murray Iron Works

ENVELOPE MACHINES
Potdevin Machine Co.

ESTIMATES
Chemi-pulp Process Ins.

EVAPORATORS
Murray, D. J. Mfg. Co.

EXTRACTORS
Valley Iron Works Co.

FANS
The Duriron Co.
E. D. Jones & Sons Co.
Ross Engineering Corp., J. O.

FAN PUMPS
Beloit Iron Works
Lawrence Mach. and Pump Co.
Moore & White Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.

FANS (Ventilating)
Perkins & Son, Inc., B. F.
Ross Engineering Corp., J. O.

FEED WATER HEATER
Stickles Steam Specialties Co.

FELT CARRIER ROLLS
American Wringer Co.
Beloit Iron Works

FELTS AND JACKETS
Appleton Woolen Mills
Bulkley, Dunton & Co.
Draper Bros. Co.
Fitchburg Duck Mills
Huyck & Son, E. C.
Lockport Felt Co.
Orr Felt & Blanket Co.
Shuler & Benninghofen
Turner, Halsey Co.
Waterbury Felt Co.

FILTERS
Deister Concentrator Co.
Filtration Engineers, Inc.
Glens Falls Machine Works
Inversand Company
Moore & White Co.
J. O. Ross Engrg. Corp.
Oliver United Filters, Inc.

FILTER WIRES
Appleton Wire Works
Oliver United Filters Inc.

FILTERING SYSTEMS
Hungerford & Terry, Inc., The
Norwood Engineering Co.
Oliver United Filters Inc.

FITTINGS
The Duriron Co.

FIXTURES (Towel, Toilet, Napkin)
Griffith Hope Co.

FLAT SCREENS
Beloit Iron Works
Bird Machine Company
Glen Falls Machine Co.

FLEXIBLE COUPLINGS
De Laval Steam Turbine Co.
Jones Foundry & Machine Co., W. A.
John Waldron Corp.

FLOOR TILE (Non-Slip)
Carborundum Co.
Norton Co.

FLOW METER
General Electric Co.

FLY BARS
Jones & Sons Co., E. D.

FOLDING MACHINES (Single Type)
Norwood Engineering Co.

FOLDING MACHINES
Hudson Sharp Machine Co.
Paper Converting Machine Co., Inc.
Waldron, John. Corp.

FOLDING TESTERS
Testing Machines, Inc.

FOURDRINIER WIRES
Appleton Wire Works
Eastwood Corporation
International Wire Works
Wisconsin Wire Works

FOURDRINIER WIRES (Rolled)
Wisconsin Wire Works

FREENESS TESTERS
Testing Machines, Inc

FRICTION CALENDERS
Norwood Engineering Co.
Perkins & Son, Inc. B. F.
Textile Finishing Mchy. Co.

FRICTION CLUTCHES
Beloit Iron Works
Moore & White Co.

FUME DUCT (Acid Resistant)
The Duriron Co.

GEARS
De Laval Steam Turbine Co
E. D. Jones & Sons Co.

GEARS (Machine Cut)
De Laval Steam Turbine Co
Limited, Charles

GEARS AND PINIONS
Moore & White Co.

GENERATORS
De Laval Steam Turbine Co
General Electric Co.

GRANITE ROLLS
Perkins & Son, Inc., B. F

GRATING (Sidewalk)
Hendrick Mfg. Co.

GREASES
Vacuum Oil Co.

GREY IRON CASTINGS
Ryther & Pringle Co.

GRID UNIT
Murray Mfg. Co., D. J.
Unit Heater & Cooler Co. The

GRINDER VALVES
Glens Falls Machine Works

GRINDING WHEELS
Carborundum Co.
Norton Co.

GROUND WOOD
Borregaard Co., Inc.

GUIDES (Automatic Web)
John Waldron Corp.

GUIDES (FELT)
Moore & White Co.

GUMMED TAPE TESTERS
Thwing Instrument Co.

GUMMING AND GLUING MACHINERY
Potdevin Machine Co.
Waldron Corporation, John

GUMMED SEALING TAPE
Paper Manufacturers Co.

HAND TRUCKS
Fairbanks Co.

HEATERS (Unit)
J. O. Ross Engrg. Corp.

HEATING AND VENTILATING SYSTEMS
Ross Engineering Corp., J. O.
Stickles Steam Specialties Co.

HIGH DENSITY THICKENERS
Oliver United Filters, Inc.
Moore & White Co.

HOISTS (ELECTRIC)
General Electric Co.

HYDRAULIC MACHINERY
Farrel-Birmingham, Co.

HYDRO-ELECTRIC DEVELOPMENTS
Johnson & Wierk, Inc.
Smith S. Morgan

HYDRAULIC TURBINES
De Laval Steam Turbine Co.
Smith S. Morgan

HYDROGEN-ION APPARATUS
Cambridge Instrument Co.

HYGROMETERS, PAPER STOCK
Cambridge Instrument Co.
Testing Machines, Inc.

INSPECTIONS
United States Testing Co.

INTERFOLDING MACHINES
Hudson Sharp Machine Co.
Paper Converting Machine Co., Inc.

JORDAN ENGINES
Appleton Machine Co.
Horne & Sons Co., J. H.
Jones & Sons Co., E. D.
Smith & Winchester Mfg. Co.
Valley Iron Works

JORDAN FILLINGS
Bahr Bros. Mfg. Co., The
Horne & Sons Co., J. H.
Jones & Sons Co., E. D.
Smith & Winchester Mfg. Co.
Valley Iron Works

KETTLES (Acid Resistant)
The Duriron Co.

KNIVES, ETC.
Dilts Machine Works, Inc.
Taylor Stiles & Co.

KNOTTERS
Glens Falls Machine Co.

LABORATORY EQUIPMENT
E. D. Jones & Sons Co.
Testing Machines, Inc.
Thwing Instrument Co.
Valley Iron Works

LACING, BELT
Flexible Steel Lacing Co.

LATEX
George D. Kratz
Chas. E. Wood, Inc.

LAY BOYS
Moore & White Co.

LIME MUD FILTERS
Oliver United Filters Inc.

LIQUID CHLORINE
Electro Bleaching Gas Co.
Kalbfleisch Corp.
Mathieson Alkali Works, Inc.

LININGS, FURNACE
E. J. Lavino & Co.

LOG HAULS
Ryther & Pringle Co.

LOFT DRYERS
Ross Engineering Corp., J. O
John Waldron Corp.

LUBRICANTS
Vacuum Oil Co.

METALLIC PACKING JOINTS
Reliable Machine Co.

MOTORS
General Electric Co

NAPKIN FOLDING MACHINE
Hudson Sharp Machine Co.
Paper Converting Machine Co., Inc.
Waldron, John. Corp.

NAPKIN DISPENSERS
Griffith-Hope Co.

NON-CORROSIVE METALS
Duriron Company Inc., The

OILS AND GREASE
Vacuum Oil Co.

OPERATING SURVEYS
Chemical Process Inc.

PACKAGE PRESSES
Hudson Sharp Machine Co.

PAPER BAG BUNDLING MACHINERY
Potdevin Machine Co., The

PAPER BAG MACHINERY
Heinrich Inc., H. H.
Potdevin Machine Co.
Smith & Winchester Mfg. Co

PAPER BAG MACHINERY (ALL TYPES)
Potdevin Machine Co., The

PAPER BREAK RECORDERS
Thwing Instrument Co.

PAPER CUTTERS
Beloit Iron Works
Hamlet Machine Company
Inman Manufacturing Co.
Moore & White Co.
Smith & Winchester Mfg. Co

PAPER CALENDER ROLLS
Perkins & Son, Inc., B. F.

PAPER CORES
Climax Tube Co.

PAPER DAMPENERS
Perkins & Son, Inc., B. F.

PAPER GUILLOTINE
Heinrich, Inc., H. H.

PAPER DUSTERS
E. D. Jones & Sons Co.
Moore & White Co.

PAPER MANUFACTURERS
Kalamazoo Vegetable Parchment Co.
Oxford Paper Co.
West Virginia Pulp & Paper Co.

PAPER MACHINE HOODS
Ross Engineering Corp., J. O
Stickles Steam Specialties Co

PAPER MILL SUPPLIES
Castle & Overton, Inc.

PAPER AND BOARD CUTTERS
Horne & Sons Co., J. H.

PAPER AND PULP MACHINERY
Appleton Machine Co.
Beloit Iron Works
Bird Machine Co.
Davis, Frank H.
Clark-Aiken Co.
Downingtown Mfg. Co.
Farrel-Birmingham Co.
Glens Falls Machine Co.
Horne & Sons Co. Inc. J. H.
E. D. Jones & Sons Co.
Lobdell Car Wheel Co.
Moore & White Co.
Paper & Textile Machinery Co.
Perkins & Son, Inc., B. F.
Ryther & Pringle Co.
Smith & Winchester Mfg. Co
Valley Iron Works Co.
J. M. Voith Co.

PAPER AND PULP MILL BROKERS
Gibbs-Brower Co.

PAPER ROLLS
Beloit Iron Works
Textile Finishing Mchy. Co.

PAPER SCALES
Testing Machines, Inc.
Thwing Instrument Co

PAPER STOCK DEALERS
Castle & Overton, Inc.

PAPER STOCK WASHERS
Jones & Sons Co., E. D.

PAPER SCREENS
Bird Machine Company
E. D. Jones & Sons Co.

PAPER TESTERS
Perkins & Son, Inc., B. F
Testing Machines, Inc.
Thwing Instrument Co.
Valley Iron Works Co.

PAPER TUBES
Climax Tube Co.

PAPER TUBE MACHINERY
Dietz Machine Works
Samuel M. Langston Co.
Potdevin Machine Co., The

PAPER WAXING MACHINERY
Gibbs-Brower Co.
Potdevin Machine Co.
Waldron Corporation, John

PENESCOPE PENETRATION TESTER
Thwing Instrument Co

PERFORATING MACHINES
Dietz Machine Works
Waldron, John Corp.

PERFORATED METAL
Harrington & King Perforating Co.
Hendrick Mfg. Co.

PIPE (Drain)
The Duriron Co

Classified Index to Advertisers

Mundt & Sons, Charles

PLATING, CHROMIUM
Chromium Corp. of America
Norwood Engineering Co.

PLATERS
Perkins & Son, Inc., B. F.

PLAYING CARD MACHINERY
Waldron, John, Corp.

POWER TRANSMISSION EQUIPMENT
De Laval Steam Turbine Co.

PRECISION INSTRUMENTS
Testing Machines, Inc.
Thwing Instrument Co.

PRESSES (Napkin)
Paper Converting Machine Co.

PRESS ROLLS
American Wringer Co., Inc.
Appleton Machine Co., The
Goodrich Rubber Co.
Horne & Sons Co., J. H.
Shartle Bros. Machine Co.
Valley Iron Works Co.

PRESS ROLL DOCTORS
Bird Machine Company

PRESS ROLLS (Granite)
Perkins & Sons, Inc., B. F.

PRESSURE BULKER
B. F. Perkins & Son, Inc.

PRESSURE CONTROL SYSTEMS
Stickles Steam Specialties Co.

PRINTING MACHINES
Heinrich, Inc., H. H.
Hudson-Sharp Mch. Co.
Waldron, John, Corp.

PRINTING PRESSES
Paper Converting Machine Co., Inc.

PULPERS
E. D. Jones & Sons Co.
Voith Co., J. M.

PULPSTONES
Carborundum Co
Norton Co.

PULP DECKERS
Bird Machine Company
Filtration Engineers, Inc.

PULP GRINDERS
Glens Falls Machine Works
Voith Co., J. M.

PULPS (KRAFT)
Borregaard Co., Inc., The
Lagerloef Trading Co., Inc.

PULP PRESSES
Farrel-Birmingham, Co.

PULP SCREENS
Bird Machine Company
E. D. Jones & Sons Co.
Trimbey Machine Works

PULPS (SULPHITE)
Lagerloef Trading Co., Inc.

PULPS (MECHANICAL)
Lagerloef Trading Co., Inc.

PULP TESTERS
Testing Machines, Inc.

PULP TESTING
Little, Arthur D.
U. S. Testing Co.

PULP THICKENERS
Bird Machine Company
Filtration Engineers, Inc.
Glens Falls Machine Co.
Moore & White Co.
Oliver United Filters Inc.

PULP WASHERS
Bird Machine Company
Filtration Engineers, Inc.
Glens Falls Machine Works
Oliver Continuous Filter Co
Pulp Bleaching Corp.

PUMP PRIMERS (Steam and Water Jet)
Appleton Machine Co., The
Lawrence Mach. and Pump Co.
Valley Iron Works Co
Warren Steam Pump Co.

PUMPS (Acid)
The Duriron Co.
De Laval Steam Turbine Co

PUMPS (Acid Centrifugal)
De Laval Steam Turbine Co
The Duriron Co.
Lawrence Mach. & Pump Co
Moore & White Co.
Noble & Wood Machine Co
Oliver United Filters Co.
Valley Iron Works
Warren Steam Pump Co.

PUMPS (Centrifugal)
Layne & Bowler Inc.
Moore & White Co.

PUMPS (Deep Well)
Layne & Bowler Inc.

PUMPS (Measuring)
The Duriron Co.

PUMPS (Reciprocating)
The Duriron Co.

PUMPS (Rotary Cycloidal)
Lawrence Mach. and Pump Co

PUMPS (Stuff)
Beloit Iron Works
De Laval Steam Turbine Co.
Lawrence Mach. & Pump Co.
Moore & White Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.
Warren Steam Pump Co.

PUMPS (Stock)
Warren Steam Pump Co.

PUMPS (Suction)
Moore & White Co.

PUMPS (Vacuum)
Lawrence Mach. & Pump Co
Warren Steam Pump Co.

PYROMETERS (Roll)
Cambridge Instrument Co.
Thwing Instrument Co.

RAG CUTTERS
Clark-Aiken Co.
Perkins & Son, Inc., B. F.
Taylor Stiles & Co.

RECORDING INSTRUMENTS
Cambridge Instrument Co.
Thwing Instrument Co.

RECORDING TACHOMETERS
General Electric Co.

RECOVERY SYSTEMS (Waste Heat)
J. O. Ross Engrg. Corp.

RECOVERY SYSTEMS (Soda & Sulphite)
Ross Engineering Corp., J. O.

REDUCTION GEARS
Farrel-Birmingham Co., Inc.
Link-Belt Co., The

REELS (Upright & Revolving)
Beloit Iron Works
De Laval Steam Turbine Co.
Moore & White Co.

REFINERS (Centrifugal)
Bahr Bros.
Bird Machine Co.

REFINING ENGINES
Jones & Son Co., E. D.

REFRACTORIES
Carborundum Co.
E. J. Lavino & Co.
Norton Co.

REGULATORS
Merritt Engrg. & Sales Co., Inc.
Trimbey Machine Works

REWINDERS
Beloit Iron Works
Cameron Machine Co.
Hudson Sharp Machine Co.
Inman Manufacturing Co.
Samuel M. Langston Co.
Moore & White Co.
Smith & Winchester Mfg. Co.
John Waldron Corp.

ROD MILL
Mine & Smelter Supply Co.

ROLL GRINDERS
Farrel-Birmingham Co., Inc
Lobdell Car Wheel Co

ROLL SLITTING MACHINES
Cameron Machine Co
Samuel M. Langston Co.

ROLL STANDS
Cameron Machine Co.
Moore & White Co.

ROLL WINDING MACHINES
Cameron Machine Co.
Hudson Sharp Machine Co.

ROLLS (Chilled Iron & Gray Iron)
Farrel-Birmingham Co., Inc
Lobdell Car Wheel Co
Smith & Winchester Mfg. Co.
Valley Iron Works

ROLLS (Embossing)
Perkins & Son, Inc., B. F.
John Waldron Corp.

ROLLS (Calender)
Perkins & Son, Inc., B. F.
Smith & Winchester Mfg. Co.
John Waldron Corp.

ROLLS (Paper)
John Waldron Corp.
Goodrich Rubber Co.
Horne & Sons Co., J. H.

ROLLS (Rubber or Rubber Covered)
American Wringer Co.

ROSIN SIZE
Kalbfleisch Corp., The
Paper Makers Chemical Co.

ROTARY PULP SCREENS
Bird Machine Company
E. D. Jones & Sons Co.

ROTARY PRINTING PRESSES
Potdevin Machine Co., The

ROTARY SCREENS
Bird Machine Co.
Moore & White Co.
Valley Iron Works

RUBBER COVERED ROLLS
American Wringer Co.

SAND & POLISHING MACHINES
Carborundum Co.
Pennsylvania Salt Co.
Waldron, John, Corp.

SATURATING MACHINES
Gibbs-Brower Co.
Moore & White Co.
Waldron, John, Corp.

SAVEALLS
Bird Machine Co.
De Laval Steam Turbine Co.
Filtration Engineers, Inc.
Glens Falls Machine Works
Moore & White Co.
Oliver United Filters Inc.

SCALES (Automatic Dial)
Kalbfleisch Corporation, The

SCIENTIFIC INSTRUMENTS
Testing Machines, Inc.

SCORE TESTERS
Thwing Instrument Co.

SCREEN PLATE
Hardy & Sons Co., W. A.
Hendrick Mfg. Co.
Union Screen Plate Co.

SCREENS
Beloit Iron Works
Bird Machine Co.
Glens Falls Machine Works
Horne & Sons Co., J. H.
E. D. Jones & Sons Co.
Moore & White Co.
Valley Iron Works

SEALING TAPE (Gummed)
Paper Manufacturers, Inc.

SHOWER PIPES
Bird Machine Company
E. D. Jones & Sons Co.
Moore & White Mfg. Co.
Smith & Winchester Mfg. Co.
Paper & Textile Machinery Co., The

SHREDDERS (Pulp and Paper)
E. D. Jones & Sons Co.
Ryther & Pringle Co.
Taylor Stiles & Co.

SILICATE OF SODA
Philadelphia Quartz Co.

SLASHERS
Murray, D. J., Mfg. Co.
Ryther & Pringle

SLIME REMOVER
Magnus Chemical Co.

SLITTERS AND REWINDERS
Beloit Iron Works
Cameron Machine Co.
Dietz Machine Works
Gibbs-Brower Co.
Inman Manufacturing Co.
Langston Co., Samuel M.
Moore & White Co.
Smith & Winchester Mfg. Co.
Waldron Corporation, John

SODA ASH
Diamond Alkali Company
Mathieson Alkali Works, Inc.
Pennsylvania Salt Mfg. Co.
Solvay Process Co.

SOLVENT SIZING
Beloit Iron works

SORTING TABLES
Moore & White Co.

SPECIAL MACHINERY
Paper Converting Machine Co., Inc.
John Waldron Corp.

SPEED CHANGES (Variable)
Moore & White Co.

SPEED REDUCERS
Beloit Iron Works
De Laval Steam Turbine Co
Farrel-Birmingham, Co.

SPEED REDUCERS (Herring Bone)
De Laval Steam Turbine Co.
Farrel-Birmingham Co.

SPEED REDUCING GEARS (Double Helical)
De Laval Steam Turbine Co.
Farrel-Birmingham, Co.

SPIRAL BEVEL GEARS DRIVE STANDS
Beloit Iron Works
Moore & White Co.

STARCH
Corn Products Refining Co.

STAIR TREADS (Non-Slip)
Carborundum Co.
Norton Co.

STEAM SEPARATORS
Stickles Steam Specialties Co.

STEEL PLATE CONSTRUCTION
Downingtown Iron Works

STEAM TRAPS
Ryther & Pringle Co.
Stickles Steam Specialties Co.

STEAM TURBINES
Terry Steam Turbine Co., The

STEAM VALVES
Stickles Steam Specialties Co

STEEL (Electric Furnace)
Timken Roller Bearing Co.

STEEL (Open Hearth)
Timken Roller Bearing Co.

STEEL (Stainless)
Jones & Sons Co., E. D.

STEEL PLATE CONSTRUCTION
Hendrick Mfg. Co.

STOCK CUTTERS
Perkins & Sons, Inc., B. F.

STOCK REGULATORS
Merritt Engineering & Sales Corp., The
Trimbey Machine Co.

STUFF CHESTS
Hauser-Stander Tank Co.
Jones & Sons Co., E. D.
Lawrence Mach. and Pump Co.
Moore & White Co.
Valley Iron Works Co.

STUFF PUMPS
Smith & Winchester Mfg. Co.
Valley Iron Works Co.
Warren Steam Pump Co.

STRAW MAKING MACHINERY
Samuel H. Langston Co.

SUCTION BOX COVERS
Horne & Sons Co., J. H. Co.
Moore & White Co.

SUCTION BOXES (Roller)
Norwood Engineering Co.

SUCTION ROLLS
Beloit Iron Works
Downingtown Mfg. Co.
Paper & Textile Machinery Co., The

SULPHITE (Bleached and Unbleached)
Andersen & Co., J.
Borregaard Co., Inc., The
Brown Co., Inc.
Castle & Overton, Inc.
Perkins-Goodwin Co.
Price & Pierce Ltd.

SULPHITE PULP (Mitscherlich)
Downingtown Mfg. Co.
Paper Manufacturers Co., Inc

SULPHUR
Texas Gulf Sulphur Co.

SULPHUR FURNACES
Glens Falls Machine Works

SUPERCALENDER
Perkins & Son, Inc., B. F.
Textile Finishing Mchy. Co.

TABLE ROLLS
American Wringer Co.
Beloit Iron Works

TANKS (Acid)
Downingtown Iron Works
The Duriron Co.
Hauser-Stander Tank Co.

TANKS (Agitator)
Downingtown Iron Works
Hauser-Stander Tank Co.

TANKS (Iron and Steel)
Downingtown Iron Works

TANKS (Water, Oil, Etc.)
Downingtown Iron Works
Hauser-Stander Tank Co.
Hendrick Mfg. Co.

TANKS (Wood)
Hauser-Stander Tank Co.

TANK OUTLETS (Acid Resistant)
The Duriron Co.

TEAR TESTERS
Thwing Instrument Co.

TEMPERATURE RECORDERS
Cambridge Instrument Co.
General Electric Co.
Thwing Instrument Co.

TENSILE TESTERS
Perkins & Sons, Inc., B. F
Testing Machines, Inc.

TESTERS (Bursting Strength)
Perkins & Son, Inc., B. F
Testing Machines, Inc.

TESTING LABORATORY
E. I. DuPont De Nemours & Co., Inc.
Electrical Testing Laboratories.
Little, Inc., Arthur D.
U. S. Testing Co., Inc.

THICKENERS
Bird Machine Company
Filtration Engineers, Inc
Oliver United Filters Inc

THICKNESS GAUGES
Testing Machines, Inc.

TIMBER ESTIMATES
Sewall, James W

TOILET FOLDING MACHINES
Paper Converting Machine Co., Inc.

TOILET WINDERS
Cameron Machine Co.
Dietz Machine Works

TOWEL CABINETS
Griffith-Hope Co.

TOWEL INTERFOLDING MACHINES
Dietz Machine Works

TOWEL FOLDING MACHINES
Paper Converting Machine Co., Inc.

TOWEL WINDERS
Cameron Machine Co.

TRACTION CLARIFIER
Dorr Company, The

TRANSMISSION MACHINERY
Beloit Iron Works
Bird Machine Company
De Laval Steam Turbine Co
Farrel-Birmingham, Co.
Timken Roller Bearing Co

TRUCKS
Rythor & Pringle Co.
Moore & White Co.

TUBES (Paper)
Climax Tube Co.

TUBING (Seamless Steel)
Timken Roller Bearing Co.

TUBS (Wood)
Hauser-Stander Tank Co.
De Laval Steam Turbine Co.

TURBINES (Hydraulic)
De Laval Steam Turbine Co.
Smith S. Morgan
Terry Steam Turbine Co.

TURBINES (Water)
De Laval Steam Turbine Co.
Terry Steam Turbine Co.

TURBO-GENERATORS
De Laval Steam Turbine Co.
Terry Steam Turbine Co.

USED PULP & PAPER MILL MACHINERY
Gibbs-Brewer Co.

VACUUM PUMPS
Paper & Textile Machy. Co.
Oliver United Filters, Inc.

VALVES
Appleton Machine Co., The
Eastwood Wire Corp.
Hardy & Sons, Wm A
Hudson Sharp Machine Co.
E. D. Jones & Sons Co.
Stickles Steam Specialties
Trimbey Machine Works

VALVES (Acid Resistant)
The Duriron Co.

VALVES (Blowoff)
The Duriron Co.

VALVES (Bronze)
Hardy & Sons Co., Wm. A.

VALVES (Automatic Water Control)
Merritt Engineering & Sales Corp., The

VALVES (Check)
The Duriron Co.

VALVES (Chrome Nickel Steel)
Hardy & Sons Co., Wm. A.

VALVES (Foot)
The Duriron Co.

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Hauser-Stander Tank Co.
Horne & Sons Co., J. H.

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J. O. Ross Engrg. Corp.

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Hungerford & Terry, Inc., The
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Glens Falls Machine Co.
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Beloit Iron Works
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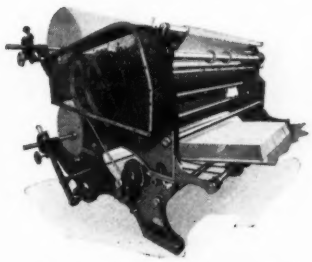

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ALPHABETICAL INDEX TO ADVERTISERS

American Delthirna Corp. ..... —
Amer. Pulp & Paper Supts. Assn. —
Amer. Sheet & Tin Plate Co. ... —
American Wringer Co., Inc. ....
..... Back Cover
Andersen & Co., J. ..... —
Appleton Machine Co. ..... —
Appleton Wire Works, Inc. 53
Appleton Woolen Mills 53
Austin Co. ..... —

Bahr Bros. Mfg. Co. ..... —
Beloit Iron Works 3
Bird Machine Co. ..... —
Borregaard Co., The 6
Bowsher & Co., N. P. ..... —
Bulkley, Dunton & Co. 45

Cambridge Instrument Co. ..... —
Cameron Machine Co. ..... —
Carborundum Co. ..... —
Carey, James L ..... —
Casein Manufacturing Co. of America 49
Castle & Overton, Inc. ..... —
Chain Belt Co. ..... —
Chemipulp Process, Inc. ..... —
Chromium Corp. of America . . —
Clark-Aiken Co. 49
Climax Tube Co. ..... —
Clinton Corn Syrup Refining Co. 49
Corn Products Refining Co. 4

Davis Co., Frank H 52
Deister Concentrator Co. 53
De Laval Steam Turbine Co. ... 53
Dietz Machine Works 47
Dilts Machine Works 53
Downingtown Mfg. Co. 23
Draper Bros. Co. 6
Du Pont de Nemours & Co., E. I. —
Duriron Company, Inc., The .... —

Eastwood Corp. ..... —
Edgar Bros. Company .. .. —
Electro Bleaching Gas Co. 8
Electrical Testing Laboratories.. 53
Elixman Paper Core Co. ..... —
English China Clay Sales Corp... —
Esselen, Gustavus J. 53

Fabricated Steel Products Co. .. 53
Farnham Mfg. Co. ..... —
Farrel-Birmingham Co. ..... —
Ferguson & Co., Hardy S. 47
Fifth Avenue Bldg., The ..... —
Filtration Engineers, Inc. ..... —
Fitchburg Duck Mills 4
Flexible Steel Lacing Co. ..... —
Fuess, Inc., R. ..... —

Geigy Company, Inc. ..... —
General Chemical Co. ..... —
General Dyestuff Corp. 7
General Electric Co. ..... —
Gibbs-Brower Co., Inc. ..... —
Glens Falls Machine Works .... —
Goodrich Rubber Co., The B. F. —
Goodyear Tire & Rubber Co. ... —
Griffith-Hope Co. ..... —

Hamblet Machine Co. ..... —
Hammermill Paper Co. ..... —
Hardy, George F. 47
Hardy & Sons, Wm. A. ..... —
Harrington & King Perforating Co. 49
Hauser-Stander Tank Co. ..... —
Heinrich, H. H., Inc. 45
Heller & Merz Corp. 6
Hendrick Mfg. Co. 53
Hicks, Daniel M., Inc. ..... —
Hospitals Trust, Ltd. ..... —
Hudson Sharp Machine Co. ... 57
Hungerford & Terry, Inc. ..... —
Huyck & Sons, F. C. 2

Improved Products Co. ..... —
Inman Mfg. Co. ..... —
International Pulp Co. 53
International Wire Works 53

Jagerberg Mch. Co. ..... —
Jenkins Bros. Inc. ..... —
Jenssen Co., G. D. ..... —
Johnson & Wierk, Inc. ..... —
Jones & Sons Co., E. D. ..... —

See Pages 54, 55, 56 and 57 for Classified List of Products and Their Manufacturers.

Kalamazoo Vegetable Parchment Co. 5
Kalbfleisch Corporation, The ... —
Knox Woolen Co. 45

Lagerloef Trading Co., Inc. .... —
Land-O-Lakes Creameries, Inc. . —
Langston Co., Samuel M. 47
Lavino & Co., E. J. ..... —
Lawrence Machine & Pump Co. —
Layne & Bowler, Inc. ..... —
Lefren, Inc., Karl A. 53
Little, Arthur D. 47
Lobdell Car Wheel Co. ..... —
Lockport Felt Co. ..... —
Lockwood's Directory ..... —
Loomis Talc Corp., W. H. ..... —

Magnus Chemical Co. ..... —
Magnuson Products Corp. ..... —
Mason Regulator Co. ..... —
Mathieson Alkali Works 26
Merritt Engineering & Sales Co. —
Michigan Steel Casting Co. 53
Mine & Smelter Supply Co. .... —
Moore & White Co. 49
Mundt & Sons, Charles 49
Murray Mfg. Co., D. J. ..... —

National Aniline & Chemical Co. —
National Tube Co. ..... —
Norton Co. ..... —

Oliver United Filters Inc. ..... —
Orr Felt & Blanket Co. 5
Orthman Laboratories ..... —
Oxford Paper Co. ..... —

Paper & Textile Machinery Co. —
Paper Converting Machine Co... —
Paper Makers Chemical Corp. .. 47
Paper Manufacturers Co., Inc. .. 53
Pennsylvania Salt Mfg. Co. 47
Perkins & Sons, Inc., B. F. ..... —
Perkins Goodwin Co.....Front Cover
Philadelphia Quartz Co. ..... —
Pickles, W. F. ..... —
Potdevin Machine Co 6
Price & Pierce, Ltd. 4
Propellair, Inc. ..... —
Pulp & Paper Trading Co. ..... —
Pulp Bleaching Corp. ..... —

Reliable Machine Co. ..... —
Rhoads & Son, J. E. ..... —
Roberts Mfg. Co., F. W. ..... —
Ross Engineering Corp., J. O. .. —

Sewall, James W. ..... —
Seybold Machine Co. ..... —
Shuler & Benninghofen ..... —
Simons, V. D. 47
S. K. F. Industries ..... —
Smith, Frederick L. 53
Smith Co., S. Morgan ..... —
Smith & Winchester Mfg. Co. .. —
Solvay Sales Corp. ..... —
Stebbins Engr. & Mfg. Co. .... —
Stickles Steam Specialty Co. ... —
St. Louis Gumming Corp. ..... —

Taylor, Stiles & Co. ..... —
Terry Steam Turbine Co. ..... —
Testing Machines, Inc. 4
Texas Gulf Sulphur Co. ..... —
Textile Finishing Machinery Co. —
Thwing Instrument Co. ..... —
Ticonderoga Mach. Works ..... —
Timken Roller Bearing Co. ..... —
Trimbey Machine Works ..... —
Turner, Halsey Co. ..... —

Union Screen Plate Co. ..... —
United Carbon Co. ..... —

Vacuum Oil Co. ..... —
Valley Iron Works Co. 59
Vanderbilt Co., R. T. ..... —
Voith Co., J. M. ..... —

Waldron Corp., John 21
Warren Steam Pump Co. ..... —
Waterbury Felt Co. 45
West Virginia Pulp & Paper Co. 45
Williams & Co., C. K. 49
Wisconsin Wire Works ..... —

KEEP A SMOOTH, ACCURATE FACTORY-MADE SURFACE

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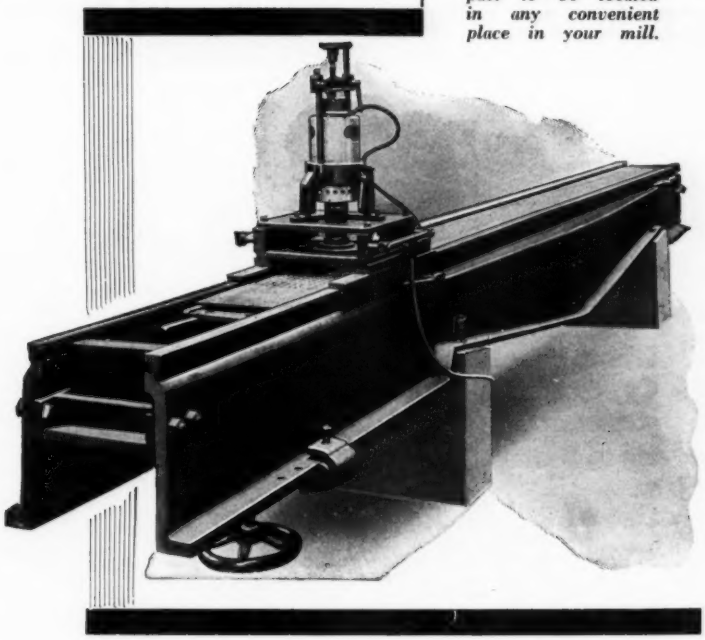

The Valley Suction Box Planer is electrically driven — easy to operate — and sufficiently compact to be located in any convenient place in your mill.

PLANING suction box covers by hand is at best inaccurate, slow and inefficient.

It is costly — not only because of the time it takes—but also due to the detrimental results of poor, uneven suction.

The Valley Suction Box Planer remedies all this. It eliminates the inaccuracies of hand work. It is fast. It refaces your covers with a precision surface that is as true and accurate as the day the covers left the factory. It reconditions them like new.

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"Here's a wallop for Old Man Overhead...

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Like to cut the stilts from under Old Man Overhead? You can do it,—without tearing your production scheme apart; without investing in a lot of new "cost-cutting widgets"; without laying off a single faithful employe. Specify TENSILASTICS instead of just "rubber rolls". It's simple,—but it works.

There's a mill in New York State* that had been grinding its rubber press rolls at 72 day intervals and recovering them about every two-and-a-half years. They installed a Tensilastic and ran 188 days before grinding. The original cover is still going strong,—on a percentage basis it should be good for more than 6⅓ years.

That's cutting overhead: cutting grinding costs and recovering costs, minimizing shut-downs for replacements, eliminating the drop in product quality that accompanies a run down roll. And you can add the freedom from worry and annoyance that goes along with the capable performance of efficient equipment.

The actual "Banker Proof" savings, over a period of fifteen years, loom up like this:

ORDINARY RUBBER PRESS ROLL	
6 replacements in 15 years at $268	$1,608.00
Interest, $1,608 at 6% (mean of 7½ years)	723.60
Grinding, every 72 days at $20	1,500.00
Interest, $1,500 at 6% (mean of 7½ years)	675.00
Total cost, purchase and maintenance	$4,506.60

TENSILASTIC RUBBER PRESS ROLL	
3 replacements in 15 years at $268	$804.00
Interest, $804 at 6% (mean of 7½ years)	361.80
Grinding, every 188 days at $20	574.50
Interest, $574.50 at 6% (mean of 7½ years)	258.53
Total cost, purchase and maintenance	$1,998.83

$2,507.77 saved by Tensilastic Rubber Rolls!

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